

PACKER, Porter, &c.; situation as same; respectable man; 30; used to trade. Bloye, 21 Bywater Street, S.W.

GENTLEMAN, established connection Scotland, North, and Midlands, wants good Drug House. 14/40, Office of this Paper.

GENTLEMAN, with first-class connection amongst Chemists, wishes to represent good House. 13/20, Office of this Paper.

GENTLEMAN open to represent good house on commission; energetic and good salesman. "X," 37 South Front, Southampton.

BIRMINGHAM.—Permanency desired with good Drug-house, early in August; varied Retail experience. 13/18, Office of this Paper.

YOUNG Assistant desires position in Wholesale; good Wet and Dry experience, and 4 years' Retail Apprenticeship. 13/37, Office of this Paper.

PILLS, Tablets, Capsules.—Young man thoroughly experienced in manufacture of same, disengaged. "Pills" (15/37), Office of this Paper.

YOUNG man (7 years' provincial experience) desires situation in London; thorough knowledge of business. Thompson, 41 Grafton Street, Dublin.

GENTLEMAN wishes to represent a good firm as Town Traveller; abstinence; salary and commission. Address, "Traveller," 54A Kennington Road, S.E.

ADVERTISER, with highest references as Manager and organiser, wishes to enter as Advertising Traveller, or otherwise. "R," 106 Devonshire Road, Holloway, N.

ADVERTISING.—Gentleman (aged 31), 3 years Assistant Advertisement Manager to a large London Manufacturing firm, disengaged, seeks similar position. Write, 94/45, Office of this Paper.

CLERK (25); thorough knowledge of Wholesale Druggist's Sundries' trade, quick at figures, &c.) seeks vacancy in Wholesale house. "F," c/o D. Hardingham, 44b Vauxhall Bridge Road, London, S.W.

REPRESENTATIVE, 28, South connection amongst Chemists, holding a responsible position with first-class Sundries' house, 3 years at the present situation, seeks re-engagement. "G.A." (19/7), Office of this Paper.

P.H.C., several years' experience as Chemist and Laboratory Manager with Wholesale House, desires similar position; used to the manufacture of Pharmaceutical and Botanic preparations and packed specialties. 15/10, Office of this Paper.

GENTLEMAN, with over 35 years' experience in the British Isles in connection with the Essential Oils and allied trades, seeks position as Buyer or Agent of a first-class firm, at home or abroad; exceptional references; speaks English and French, and well acquainted with the South of France Perfumery trade. Apply, "A.S." (272/10), Office of this Paper.

OPENING up Business in South Africa or Australia.—A medical man, relinquishing practice, is desirous of representing in either country a firm of good standing, for Drugs, Chemicals, Surgical Instruments and Appliances, or other articles or specialties connected with the Medical, Dental, or Veterinary professions; is active, gentlemanly, perfectly reliable, and well known in and out of the profession; best possible references. "Medicus," c/o Mr. Huish, 12 Red Lion Square, W.C.

AGENCIES.

3s. 6d. for 50 words or less; 6d. for every 10 words beyond.

COD LIVER OIL.—A Firm, manufacturing Non-freezing Medicinal Cod Liver Oil (finest quality), is open to appoint Agents in districts where not already represented, for the sale of this Oil to Wholesale Chemists. 172/20, Office of this Paper.

GENTLEMAN with first-class connection with Doctors and Chemists, in the North of England wanted to take up an agency for a firm of Wholesale Druggists of good standing; liberal commission offered to good man. Apply with full particulars as to connection, probable turnover, &c., to 171/43, Office of this Paper.

TRINIDAD (West Indies).—Alex. S. Laing & Co., Wholesale and Retail Chemists and Druggists, 6 Brunswick Square, Port of Spain, possess exceptional facilities for the introduction of New Specialties, Patent Medicines, Druggists' Sundries, Perfumery, &c., &c.

New Books for the Trade.

THE following are the latest additions to the "Chemists' Compact Library" published at the offices of THE CHEMIST AND DRUGGIST, 42 Cannon Street, London, E.C.:

ELEMENTARY DISPENSING PRACTICE.

By Joseph Ince, Ph.C., F.C.S. Price 3s. 6d., by post 3s. 9d.

A recent issue of "The Pharmaceutical Era" says of this book: "In examining the work one can hardly realise from the freshness of its style and the attractive character of its contents that the author has lived beyond the allotted 'three-score and ten.' However, the man behind the prescription-counter will surely appreciate this effort on the part of Mr. Ince, and notwithstanding the incorporation of a large amount of elementary instruction, the dispenser will find in it many valuable hints and much practical information bearing directly upon his every-day work. For those entering on the study and practice of dispensing-pharmacy no better work can be recommended."

"PHARMACEUTICAL FORMULAS,"

Vol. II. Price 10s. net, or by post 10s. 6d.

These books may be obtained from our office, or at the net published prices from any of the following houses:

Allen & Hanburys (Limited), Bethnal Green, N.E.
Ayrton, Saunders & Kemp (Limited), Liverpool.
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Duncan, Flockhart & Co., Canongate, Edinburgh.
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60 Bartholomew Close, E.C.
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R. Hovenden & Sons (Limited), London.
John Ismay & Sons, Newcastle-on-Tyne.
H. K. Lewis, Gower Street, W.C.
Lockwood & Co., 168 St. John Street, E.C.
McKesson & Robbins, New York, U.S.A.
S. Maw, Son & Sons, Aldersgate Street, E.C.
May, Roberts & Co., Clerkenwell Road, E.C.
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Potter & Clarke, 60 Artillery Lane, E.
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John Thompson (Limited), Liverpool.
Wilkinson & Simpson (Limited), Newcastle-on-Tyne.
J. Woolley, Sons & Co. (Limited), Victoria Bridge, Manchester.
Wright, Layman & Umney (Limited), London.
Wyleys (Limited), Coventry.

THE EDUCATIONAL INSTITUTIONS advertising in this issue are as follows:—

School of Pharmacy, 17 Bloomsbury Square, W.C.
South London College, 325 Kennington Road, S.E.
Westminster College of Chemistry, Trinity Square, Borough, S.E.
Metropolitan College of Pharmacy, 160 and 162 Kennington Park Road, S.E.
London College of Chemistry, 323 Clapham Road, S.W.
Imperial College of Pharmacy, 49, 51 Imperial Buildings, Ludgate Circus, E.C.
Royal Dispensary, 21 West Richmond Street, Edinburgh.
Burlington Correspondence College, 8 Crescent Grove, Clapham Common, S.W.
Leeds College of Pharmacy, Clarendon Road, Leeds.
Liverpool School of Pharmacy, 6 Sandon Terrace, Liverpool.
North of England School of Pharmacy, 55 Northumberland Street, Newcastle-on-Tyne.
Edinburgh School of Pharmacy, 26 Clyde Street, Edinburgh.

American Pharmacy.

BY AN ENGLISH PHARMACIST.

AMERICAN PHARMACY has become so thoroughly imbued with the spirit of commercialism as almost entirely to deprive it of any professional aspect, and this appears to be due partly to keen competition through the superabundance of drug-stores, of which new ones are opened every week, and partly to the attitude of the medical profession towards pharmacy. For the close relationship which should naturally exist between the physician and the pharmacist is gradually and surely being dissolved, through the action of the physician in the extended use of proprietary medicines and tablets, capsules, &c., making the dispensing department one of the least, as it used to be one of the most, profitable branches of a chemist's business; and because of counter-prescribing and alleged substitution on the part of the pharmacist.

But is the pharmacist entirely to blame when he takes every opportunity of prescribing some simple mixture, which bears him a fair profit, when he knows that if he recommends his customer to go to a doctor, he will most probably have the pleasure of dispensing a prescription which requires no skill or manipulation, and returns but a very small profit, being composed of one or many of the various proprietary medicines on the market, literature concerning which is freely distributed amongst the physicians, who rely upon the recommendation of the manufacturer for the value of the preparation?

With the partial decay of the most remunerative part of his business, the pharmacist has had to turn his attention to many and various "side-lines," which are now become the "backbone" of his business. He is keenly alive to the importance of a good position for his store, which is furnished with light fixtures, plenty of glass showcases, and brilliantly illuminated with electric light, making it as attractive as possible. Patent medicines and proprietaries are cut almost to cost-prices, but good prices are obtained for toilet-articles and prescriptions.

Probably the greatest source of profit is the soda-fountain, which is a general institution, even in the smallest stores, whilst in the larger ones, particularly in the business part of New York City, we find a "bar" extending the entire length of the store, at which a score or more of people may be served at once with drinks of a very varied nature. In the summer a tremendous business is done in cold drinks. In winter, instead of closing up the fountain, many a big trade is done in hot drinks. Bovine, chocolate, malted milk, &c., are now in demand, and although the business is not nearly so brisk, yet there is a good winter trade to be done.

Tobacco is another of the side-lines which help to build up the business, whilst nearly every drug-store in the city is a sub-post-office, and stationery, confectionery, and a host of fancy articles all find a place in this heterogeneous stock, of which drugs seem to form but a very small part.

Hours of business are abnormal, being generally from 7 A.M. to 11 P.M. There are shorter hours, but the pharmacist is essentially a servant of the people, and gets very little leisure, as even on Sundays and holidays the hours are the same; and only by arranging alternate duty amongst themselves can the assistants get even a Sunday free, except in a few stores in the business part of the city, where the hours are from 8 A.M. to 8 P.M.

There are a few pharmacies in the more wealthy parts of the city where better conditions prevail, but these do not number more than about half a dozen. One noteworthy feature in these stores is the absence of the fountain, indicating, perhaps, that their wealthy patrons do not care to take their soda "neat." One proprietor has fitted up an operating-room, with instruments and every requisite complete, for use in cases of emergency. These select few are in close contact with the medical profession, and frequently get urine-analysis and such work to do. Of course, high prices rule, consequent upon the wealthy class of customers and owing to competition being limited.

Having glanced at the general conditions and prospects of pharmacy, it may be of interest to consider what is required of the student who would hold a certificate in the

State of New York. There is no national Pharmaceutical Society—each State having its own Board of Pharmacy, which holds examinations and grants diplomas, that are valid only in the State in which they are issued; although in some cases there appears to be a certain amount of reciprocity.

When the American youth enters on his pharmaceutical career as an apprentice, he is generally about fifteen to seventeen years of age, and has had a grammar-school education, which is about equivalent to that of an English Board school, and he rarely possesses even a rudimentary knowledge of Latin. He pays no premium, but does not live with his employer, and is paid about \$3 per week to commence with. No contract is made binding him to serve any length of time, so he may at any moment leave, and frequently does, in order to get his early instruction in a variety of stores. As the "apprentice" grows familiar with the business, his salary increases, and he advances through the junior to the senior position, with a salary which would seem a fortune to the English apprentice of his own age. He must be for four years engaged in practical pharmacy before he is eligible to be examined by the State Board. It is possible to pass these examinations without attending a college at all, and, in fact, the majority do so, for it is estimated that only about 25 per cent. of the druggists of the United States are college graduates.

For those who prefer a college course of training every facility is offered, and the necessary practical experience required by the Board can be obtained concurrently with the college course. In nearly all the large cities an arrangement has been arrived at between the druggists and the proprietors of the colleges by which all assistants, both junior and senior, may pay their expenses while attending college. The lectures are so arranged that three days of the week are devoted to junior work, and the three alternate days to senior work. The arrangement with the druggist is that he shall employ two assistants, a junior and a senior, who shall work alternately three days of the week, and half a day on Sunday, thereby allowing them half their time for college work, whilst the druggist always has one man in his store. There appears, however, to be one drawback to this system, for considering the fact that three days of the week the student generally works from 7 A.M. till 11 P.M., and on the other three days he is occupied at college, there is practically no time left, after allowing for necessary recreation and home study.

Two years of study—the first junior and the second senior work—lead to the degree of "Graduate in Pharmacy," and qualify the graduate to present himself for examination for the position of licensed pharmacist. If a third or post-graduate course is taken, and the college examination passed, the degree of "Doctor of Pharmacy" is conferred by the college; but passing these examinations does not entitle successful candidates to practise pharmacy: they are simply honorary degrees, and possess no material value. The fees for the two-years' course—including \$10 examination-fee for graduation and \$25 for necessary books—are \$235, or about 49l. Another fee of \$100 is required for post-graduate course.

Those students who have had little business training may get very valuable instruction in the course of lectures on "commercial forms and processes." Practical demonstration is given in the forms of accounts, banking-operations, cheques, drafts, contracts, mortgages, &c. Students must pass the junior examination at the end of the first year before taking up the senior course.

What is called the "annual course" in reality extends only from October to April, and as only half that time can be spent at the college, the actual time engaged in active work during the two years is reduced to about six months, all of which time cannot be devoted to purely pharmaceutical work. For, as no preliminary examination is required by the State Board, an extended study of the principles of arithmetic is required as a part of the student's training during the first year, including decimal and vulgar fractions, percentage, physics, &c. Certificates or diplomas are not recognised in lieu of this requirement.

Bacteriology forms one of the subjects for the third year's study, and special attention is given to yeasts and moulds, examination of milk, sputum, and the like.



Weekly Journal of Pharmacy and the Drug-trade.
ESTABLISHED 1859.

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Telegraphic Address: "Chemicus London."
Telephone No.: 852 Bank.

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	Adelaide, S.A.	.. 76 Brookman's Building, Grenfell Street.

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Ten shillings a year in advance, post free to any part of the world, including a copy of *The Chemists' and Druggists' Diary* next published. Single copy, 4d.; Summer or Winter Number, 1s.; *Diary*, 3s. 6d. Postal orders and cheques to be crossed "Martin's Bank (Limited)."

AS AN OFFICIAL ORGAN

THE CHEMIST AND DRUGGIST is supplied by subscription to the whole of the members of NINETEEN PHARMACEUTICAL SOCIETIES in the British Empire, including Ireland, Australia, New Zealand, South Africa, and the West Indies.

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TAKE SPACE IN THE SUMMER ISSUE.

A BUSINESS MAN who does not advertise so much in THE CHEMIST AND DRUGGIST as he used to do complained the other day that business was dull. He stopped his advertising because he thought he might save a little of those expenses which all business men find so hard to keep down. When he advertised in the *C. & D.*, overtime was the normal condition of his staff, and business came in from all parts of the world with orders upon bankers against bills of lading.

IF THIS SHOULD MEET HIS EYE,

or that of any other business man, he should take it to heart and prepare a good advertisement for the Summer Issue of THE CHEMIST AND DRUGGIST, July 30, 1904. Let it be a straight offer of goods, preferably a price-list—something that will appeal to retailers and others who wish to increase their returns—and it will repay itself tenfold, if not more.

Summary.

THIS number concludes our sixty-fourth volume, and includes a full index inserted between p. 1016 and p. 1017.

THE need of taxing more highly spirituous medicines imported into Germany is urged by German experts (p. 995).

OUR obituary columns contain notes on Mr. Elias Bremridge (London), Mr. A. W. King (Mandalay), and Mr. W. Stokoe (Manchester) (p. 999).

THE NATAL PHARMACEUTICAL SOCIETY has had a good year. We report the annual meeting on p. 996. Mr. G. A. Champion has been re-elected President.

SOME notes on the Conference to be held in Sheffield seven weeks hence are given on p. 1004. They include slight alterations in the excursion arrangements.

MR. THOMAS DUNLOP has resigned his membership of the N.B. Branch Executive of the Pharmaceutical Society, and Mr. J. A. Russell takes his place (p. 997).

THE SCINTILLOSCOPE is a modification by Mr. F. H. Glew of the spintharoscope, pitchblende being used as the scintillating substance. It is figured and described on p. 1016.

MR. D. B. DOTT has summarised Scotch pharmaceutical work during 1903-4 in an address to the members of the Pharmaceutical Society in Scotland. He reported progress generally (p. 997).

THE FINMARKEN COD-FISHING has been so good that the supply of oil is increasing and prices are decreasing. The situation and some interesting sidelights are the subject of an article on p. 1005.

A LIVERPOOL PEPPER-DEALER has got three months' imprisonment, under the Merchandise Marks Acts, in respect to the offence of describing as "white pepper" a mixture of pepper and peanut meal (p. 1011).

TEMPERANCE WINES are the latest "foods" to focus the attention of local authorities, and a conviction under the S. F. and D. Acts has been obtained for selling a non-alcoholic preparation as "wine" (p. 1007).

WE conclude our observations on brandy, dealing on this occasion with the Paris Municipal Laboratory's methods of analysis, and the constituents thereby determined in various qualities of *cau de vie* (p. 1006).

THE QUESTIONS given in the Jacob Bell Scholarships Examination this week are worth the attention of students, and cover Latin, English, arithmetic, French, German, pharmacy, chemistry, and botany. See p. 998.

IN THE DRUG AND CHEMICAL MARKETS German refined camphor has been advanced, citric acid is firmer, and tartaric acid, cream of tartar, and sulphate of copper are easier. Cod-liver oil, cloves, and shellac are lower. Quinine is nominal (p. 1021).

TWO BELFAST shopkeepers have been fined under the Pharmacy Act (Ireland) for compounding medical prescription; but the Society's agent failed, owing to a technicality, to secure the conviction of two provincial retailers of arsenical sheep-dip (p. 1010).

THE STUDENTS' CORNER prizes go this month to Mr. A. Howe (Kennington) and Mr. Sydney Smith (Clapham). Dr. Dobbin will in our next issue begin a series of articles on salts and the ionisation theory. The series is intended for beginners in chemical analysis, but the articles will, we feel sure, interest all (p. 990).

SEVERAL UNQUALIFIED ASSISTANTS were summoned by the Pharmaceutical Society to Bloomsbury County Court on Wednesday for selling poisons, and fines were paid in all cases. In one the defendant was a colonial registered pharmacist, who made a gallant but ineffectual attempt to prove the desirability of recognising his qualification (p. 1009).

THE rumoured advance in the Treasury's attitude towards tax-free alcohol seems to be much exaggerated. It is supposed that the corn-tax penny added to the differential Customs-duty is to be removed, but our House of Commons representative shows this to be unlikely (p. 1014), and Mr. T. Tyrer, while sharing this view, hints at prospective Excise changes (p. 1019).

THE Shop Hours Bill as amended by the Standing Committee on Trade contains unaltered the objectionable references to the sale of medicines and medical and surgical appliances. "Nothing in a closing order shall apply to any shop where the only trade or business carried on" is in such articles. We consider that this will prohibit chemists getting the advantage of the Act. It is, therefore, desirable that chemists should write to their members asking Lord Avebury's clause as to chemists to be inserted in the Bill, and the reference to medicines struck out of the schedule. We report the Committee's proceedings on p. 1014.

Corner for Students.

CONDUCTED BY LEONARD DOBBIN, PH.D.

Students, please note. All communications should be addressed to the Editor of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

All communications, and reports must bear the names and addresses of the writers, not necessarily for publication. The reports of those who ignore this rule are liable not to be dealt with.

REPORTS.

THE powder distributed to students on May 25 contained 8 parts of lead hydroxycarbonate, 1 part of mercuric chloride, and 1 part of barium oxalate.

The calculated composition of such a mixture is :

Pb	...	...	...	...	64.1
Hg	...	...	...	...	7.4
Ba	...	...	...	...	5.6
CO ₂	...	...	...	...	12.4
Cl	...	...	...	...	2.6
C ₂ O ₄	...	...	...	...	3.6
OH	...	...	...	...	3.5
H ₂ O	...	...	...	...	0.7

99.9

A trace of iron was the only noteworthy impurity present in the powder.

Samples of the powder were distributed to twenty-five students, and nine reports were sent in for examination. Of those students who sent in reports, all succeeded in detecting the presence of lead and of the carbonic and hydrochloric radicals; while all failed to detect the oxalic radical; six missed barium and three missed mercury, and only two observed the evolution of water in small quantity when the powder was heated in a dry test-tube.

The failure of all of our correspondents to detect the presence of the oxalic radical forms a remarkable feature with regard to this month's exercise. One or two students did not apply any test that was likely to reveal the presence of the small proportion of this radical which the powder contained, but several others who applied the appropriate special test, did not obtain any positive result. The change of colour which the lead hydroxycarbonate underwent when a portion of the powder was heated in a dry tube pretty effectually masked the slight darkening which accompanied the decomposition of the barium oxalate, so that an indication of the presence of the oxalic radical was not likely to be obtained at this stage. When, however, a small quantity of the powder was boiled for a few minutes with six times its weight of sodium carbonate and the smallest practicable quantity of water, the liquid obtained on filtering; and acidulating the filtrate with acetic acid, gave an immediate white precipitate on the addition of calcium chloride. This precipitate was readily soluble in dilute hydrochloric acid, and also behaved in other respects as calcium oxalate does, so that, in the known absence of sulphates, there was no room for doubt as to its nature. A noteworthy fact, however, in connection with the failures when applying this test, was that our correspondents did not observe the formation of any precipitate at all, and they concluded from this that the oxalic radical was absent. We attribute the failures to the powder having been boiled either with too dilute a solution of sodium carbonate, or for too short a time, for any appreciable quantity of the barium oxalate to have been decomposed.

The failures to find barium were probably due in most cases to this metal having been precipitated as oxalate on the addition of ammonia in testing for metallic radicals of the iron group. The oxalates and borates (as well as the phosphates) of the barium-group metals and of magnesium

are liable to be precipitated, partially at least, at this stage, and steps must be taken to destroy oxalates before proceeding to this part of the analysis if security from error due to this cause is to be ensured. The destruction of the oxalate can be effected most appropriately by evaporating the hydrogen-sulphide filtrate to dryness and igniting the residue before proceeding to test for the presence of metals of the iron group. On heating the original powder in the Bunsen flame on a platinum wire, a very distinct and persistent green coloration was imparted to the flame and was clearly visible after the bluish colour which was due to the lead salt present had disappeared. More than one student who observed this green coloration failed to find, or indeed to make diligent search for, any ingredient in the powder to account for its production.

It is a rather remarkable circumstance that when a lead salt is present as an ingredient in a mixture supplied for analysis in connection with this column, a number of our correspondents report the presence of the acetic radical, and that, too, on the strength of the very shakiest evidence, or of none at all. Perhaps we may venture to indicate that the carbonate, chloride, nitrate, and sulphate are, like the acetate, quite common and ordinary salts of lead; and also that qualitative analysis affords a very unsatisfactory sphere in which to indulge in flights of imagination.

PRIZES.

The First Prize for the best analysis has been awarded to ARTHUR HOWE, 21 Lorrimore Square, Kennington Park, S.E.

The second prize has been awarded to SYDNEY SMITH, 43 Fentiman Road, Clapham Road, S.W.

First Prize.—Any scientific book that is published at a price not greatly exceeding half-a-guinea may be taken as a first prize.

Second Prize.—Any scientific book which is sold for about five shillings may be taken as a second prize.

The students to whom prizes are awarded are requested to write at once to the Publisher naming the book or books they select.

MARKS AWARDED FOR ANALYSES.

1. Correspondents who are unqualified:

Arthur Howe (1st prize) ...	84	J. McA.	66
Sydney Smith (2nd prize) ...	72	W. H. Harrison	64
S. T. Bennett ...	67	R. B. McB.	52
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2. Correspondents who are qualified, or who have not indicated that they are unqualified:

Danwer	69	J. H. S.	72
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TO CORRESPONDENTS.

ARTHUR HOWE.—Had you sought for an explanation of the formation of a precipitate when barium chloride was added to the neutralised sodium-carbonate extract, you might have been led to search for oxalate; but a special examination for oxalate ought to have been made in any case, irrespective of the hint obtained from that test. If the solution to which you added the barium chloride was really neutral, there can be little doubt that the precipitate you observed consisted of barium oxalate.

SYDNEY SMITH.—Some indication of mercury globules ought to have been obtained when the powder was heated with dry sodium carbonate in an ignition-tube. Perhaps you tried the experiment on a very small scale and in a wide tube, so that the mercury sublimate was so scattered as to be inconspicuous. The black precipitate which you obtained on adding ammonium chloride, ammonia, and ammonium hydrosulphide to the filtrate from the lead sulphide, was most probably due in part to traces of lead which had escaped precipitation—in a too strongly acid solution—by hydrogen sulphide; it no doubt also consisted in part of barium oxalate.

S. T. BENNETT.—We cannot understand how you obtained reactions which led you to conclude that the powder contained cadmium. Note that silver chloride is not soluble in

sodium hydroxide—perhaps you named the latter reagent inadvertently when you meant to name ammonia.

J. McA.—It would appear from your report that the hydrogen-sulphide precipitate dissolved entirely in nitric acid. This, however, did not take place, since the precipitate consisted, in part, of mercuric sulphide, which is insoluble in nitric acid.

W. H. HARRISON.—The precipitate which you obtained on adding barium chloride to the solution of the original powder in hydrochloric acid (apparently concentrated hydrochloric acid) almost certainly consisted of barium chloride. This substance, like barium sulphate (which you erroneously supposed it to be), is practically insoluble in concentrated hydrochloric acid, although, unlike barium sulphate, it is moderately soluble in water and in dilute hydrochloric acid.

R. B. McB.—We regard the necessity of carrying out an analysis with a small quantity of a substance as a valuable discipline for our correspondents; and it is often interesting to note the ingenuity which some of the latter exhibit in devising methods whereby the same small portion of a powder can be employed for several distinct tests. A moment's reflection will satisfy you that the portion of the original substance which has been heated by itself in a dry test-tube may quite properly furnish material for borax-bead tests and for heating on charcoal with sodium carbonate; and this is only one instance of many economies of substance which can be practised with good results.

J. H. S.—See the last sentence of the reply to Sydney Smith.

By way of a variation from the usual exercises in practical analysis, we propose to begin next week, in the Corner for Students, the publication of a series of papers dealing with a subject which is rapidly assuming such importance that all students of chemistry will find it to their advantage not only to understand its theoretical bearings, but also to obtain a working knowledge of its practical applications. Under the title

"SALTS, AND THE IONISATION THEORY,"

these papers will deal with the general nature of salts and with their properties in solution, and will afford an introduction to the ionisation theory of solution. The papers will be continued weekly during July, August, and September.

New Books.

These notes do not necessarily exclude subsequent reviews of the works. Any of these books can be supplied, at the published price, to readers of this journal on application (with remittance) to the Publisher of "The Chemist and Druggist," 42 Cannon Street, London, E.C.

Beck, C. *Röntgen-ray Diagnosis and Therapy.* 8vo. 18s. net. (S. Appleton.)

Freund, L. *Elements of General Radio-Therapy.* 8vo. 21s. net. (Rebman.)

Haig, A. *Uric Acid: Epitome of the Subject.* 8½×5½ Pp. 166. 2s. 6d. net. (Churchill.)

Soddy, F. *Radio-activity: Element. Treatise, from Standpoint of Disintegration Theory.* 8¼×5¾. Pp. 226. 6s. 6d. net. ("Electrician" office.)

Technological and Scientific Dictionary: containing, in addition to many special articles, definitions of terms in art, science, heraldry, and technology. Edited by G. F. Goodchild, B.A., and C. F. Tweney. London: George Newnes (lim.). In parts 1s. each net. [The first three parts bring the Dictionary up to an instalment of an article on electric lighting. It promises to be a reference-book of high value, as the information is concise, grasps the principle in each case, and suffices for all but specialists.]

Thresh, Dr. John C. *The Examination of Waters and Water-supplies.* Fcap. 8vo. Pp. xvi.+460. 14s. net. J. and A. Churchill. ["When my duties as a medical officer of health afforded me the necessary opportunities . . . I was speedily convinced that the examination of the source of supply often afforded far more important information (about a water) than could be obtained from the analytical results." This is extracted from the preface; it is the keynote of the book, which comprises: Part I., Examination of the sources from which water is derived; Part II., Methods of examining water and interpreting the results; Part III., Analytical processes and methods of examination. To these are added voluminous unclassifiable notes, formulæ, and factors, and numerous plates. An epoch-making book in this department of science.]

English News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Brevities.

At Cullompton on June 20, William Rawle, farmer, Bradninch, was fined 10l. and 2l. 2s. costs for acting as a veterinary surgeon, he not being qualified.

The Oxo Company are providing Oxo and a pair of walking corks for every competitor in the Portsmouth shop-assistants' walk on Wednesday, July 13.

The Rotherham Board of Guardians have accepted the tender of Mr. Humphry Davy, chemist and druggist, of Rotherham, for the supply of drugs to the workhouse.

At a meeting of the General Committee of the Stockton and Thornaby Hospital on June 15 it was decided that in future tenders for surgical dressings should be obtained from local chemists.

Richard A. Derrick, the apprentice who stole 41l. 10s. from his employer, Mr. D. S. Edmond, chemist and druggist, Kingsland, was on Wednesday bound over to be of good behaviour for twelve months.

At Bow Street Police Court on June 22, Henry Whitbread, described as a chemical-manufacturer, living in Compton Street, Judd Street, Euston Road, was remanded on a charge of having committed bigamy.

The public analyst of Hackney reported on June 21 that the only samples of drugs he had examined under the Sale of Food and Drugs Acts during the past quarter were three samples of cream of tartar, all of which were genuine.

At the Central Criminal Court on June 21, James Eggo (55) pleaded guilty to having published a false and defamatory libel of and concerning Dr. Tibbles' Vi-Cocoa, with intent to extort money, and was bound over in 250l. to come up for judgment if called upon.

At North London Police Court on June 18, Woolf Wiesberg and Max Strauss were committed for trial on a charge of contravening the Merchandise-marks Act by fraudulently imitating the Welsbach incandescent gas-mantles, labels, and boxes (see *C. & D.*, June 18, page 951).

Mr. George Wright, chemist and druggist, Burton, was co-defendant in a light-and-air action for 50l. taken by a neighbour in respect to a tank on property of which Mr. Wright had purchased the fee-simple. Judge Linley suggested that the matter was one for private settlement, and both parties agreed.

The Borough of Camberwell are troubled about the practice of mixing boric acid with foodstuffs, and are asking other bodies to address the Local Government Board requesting them to take such steps as may be necessary to fix a limit to the amount of the acid (free or combined) which may be mixed with food.

Mr. E. M. Chater, pharmaceutical chemist, High Street, Watford, has just been the victim of a thief. Someone went into his private residence in St. Albans Road, and decamped unobserved with several watches and articles of jewellery to the value of 10l. No trace of the thief has yet been found.

The Salvation Army begins in London this week the largest international religious gathering ever held in the metropolis, and a *C. & D.* contributor has been informed at the headquarters that over two hundred chemists throughout this country are members of the Army. These include at least one ex-Bell scholar, and several Major men.

At an inquest held last week on the body of a labourer employed at the Vinolia Soap Works, Stratford, E., who died from accidental injuries sustained there, the Coroner stated that the factory inspector who had been over the premises remarked that nothing further could be done to prevent such an accident.

Fires.

Damage to the extent of about 300l. was done by fire on June 19 at the premises of Messrs. Clayton, Holdroyd & Co., druggists and drysalers, Longroyd Bridge, Huddersfield.

An outbreak of fire occurred on June 20 in the upper portion of the premises of Messrs. Joseph Travers & Son (Limited), wholesale dealers in produce and spice-grinders, Bankside, S.E. Two floors and their contents were totally destroyed, damage estimated at nearly 10,000*l.* being done.

Cricket.

Metropolitan College of Pharmacy v. Walham Green Wesleyan Church C.C.—This match was played on the ground of the latter at Fulham, and after a very pleasant game ended in a win for the "Metros" by forty-three runs. Palmer for the Metros took seven wickets for fourteen runs.

The Notts Chemists' Athletic Club met St. John's on Nottingham Forest on June 16, and gave a most creditable display. Going to the wicket first, the pharmacists compiled 151, the principal contributors being H. C. Prince (47), P. C. Cartledge (27), and A. H. Boggis (17). St. John's made 100 for six wickets, the game being left drawn.

Under the auspices of the Leicester and Leicestershire Chemists' Association a cricket-match was played on the Leicester County Ground on June 16 between teams representing the chemists of the town and their assistants. A capital afternoon's sport was obtained, the principals winning by twelve runs. For the winners Cleaver batted well making 35, and Butler made 14. For the losers Forryan (16), Lillie (12), and Weir (12) were the most successful bats. For the winners Butler took seven wickets for 40; Cleaver two for 17; and Marfitt one for 3. For the losers Tomlin took seven for 37, and Bell three for 28. After the match the teams were photographed, and then the company, to the number of seventy-two, adjourned to the Pavilion for tea. Mr. W. Thirby, President of the Association, congratulated the committee upon the excellent arrangements made and trusted that that may be a precursor of further gatherings. He suggested a tennis tournament in which ladies could take part. Mr. Marfitt and Mr. Cleaver briefly responded, saying that if possible arrangements would be made for a return match to be played later in the season. We reproduce the photograph of the winning team.



THE PRINCIPALS.

The names, from left to right, are: *Top row.* Messrs. Rodhouse, of J. Richardson & Co. (scorer), A. H. Swift, E. Wand, S. E. Cleaver, G. Ward, of T. Howard Lloyd & Co. (umpire), F. Welby, A. D. Hearnshaw, E. B. Wand (umpire), H. W. Clear, and H. A. Martin. *Sitting.* Messrs. F. W. Goodess, E. H. Butler, Shelton, and G. E. Marfitt.

A Foreign Dentist's Plight.

Mr. Hans H. Joseph, described as a dentist, of Newport, when before Judge Owen at Newport County Court on June 17, regarding seven judgment summonses for debt, explained to the Judge that he is notified as a lecturer to a German University, and if he became a bankrupt he should lose all hope of holding the appointment, and it would injure his practice. His Honour remarked "Let your practice and your profession go rather than take in

my innocent countrymen here in Newport." In reply to his Honour Joseph said he made in his practice last year 500*l.*, but he did 600*l.* worth of advertising. An order for immediate committal for twenty-one days was made. (A receiving-order on Joseph's estate has since been gazetted.)

A Bonus and Something Else.

Messrs. Edward Cook & Co. (Limited) had their bonus-distribution recently, when about four hundred of the employes met, at the invitation of the directors, at tea, in one of the large packing-rooms of the works at Bow, which was made smart for the occasion. A scene on the Riviera not far from Nice, known as "La Croisette," making a charming background for the choice flowers grouped at the front of the stage. Mr. Thos. Alex. Cook presided, and was supported by Mr. Samuel Hall, Mr. E. Miall Cook, Mr. S. Godfrey Hall, and Mr. E. Leonard Cook. During tea the band of the 1st Brentwood Company Boys' Brigade played a selection. Tea over, the tables were again covered with liquid refreshment, and souvenirs were presented to all present—a briar pipe and packet of tobacco for each man, a pocket-handkerchief for each girl, and a tie for each boy. A concert was then given, and at the end of the performance the Chairman announced a bonus-distribution, saying that the policy of the directors is to pay liberal wages and expect willing work, but the employes, by saving time as well as material can add to the prosperity of the business. The proceedings concluded with a vote of thanks to the artists.

Sheffield Notes.

Mr. George Squire, Ph.C., of Haymarket, had the misfortune to lose his father, Mr. Samuel Squire, of Barnsley, on Saturday last. The deceased gentleman died of cancer.

Our local photographic chemists are taking every advantage of the exhibition organised by the Kodak Company at the Montgomery Hall this week. Several of them have special posters exhibited on their premises (one has his shop-facia pasted over with bills), and Mr. H. G. Williams, of the Moor, is, in addition, giving free demonstrations.

Morris Myerson (40) and Jacob Lawrence Levi (32), both of Sheffield, were committed for trial, at Scarborough Police Court on June 18, on a charge of having obtained 8*l.* 3*s.* by false pretences. The evidence for the prosecution was that Myerson represented himself to be Mr. Ison, a well-known Leeds oculist, and thus induced a Mr. Blackwell, of Scarborough, to part with 8*l.* 3*s.* for a pair of spectacles.

Frauds Alleged.

Charles Saunders was remanded at Tonbridge on June 21, on charges of defrauding local doctors. It is alleged that Saunders made a practice of waiting upon medical men and posing as a representative of the "Medical Accessories Company, of New York." He would produce a medical pocket-lamp and offer to supply one for 10*s.* 6*d.* or 7*s.* 6*d.* in a few days. After the money had been deposited Saunders would disappear, and nothing more would be heard of him. Saunders usually presented a card with the following wording: "M.A.C. medical and dental appliances, Canada, Germany, U.S.A. Agents for British Isles, Aflee & Saunders; offices, 37 Westbury Road, Walthamstow, Essex."

Midland Notes.

A young woman was taken to the Birmingham General Hospital on June 20, suffering from lead-poisoning, the results of swallowing a quantity of red-lead.

Alderman Clayton, pharmacist and City Chancellor of the Exchequer for Birmingham, notified an agreeable (but unusual) decrease in the borough rate at the last Council-meeting.

The local Press in producing gardening tips has incidentally brought grist to the mill of pharmacy by recommending liver of sulphur, quassia, sulphate of ammonia, and the like.

Mr. Arthur Chamberlain and Mr. Barrow Cadbury, who are both greatly interested in the success of hospitals, have given 2,000*l.* to the funds of the new Women's Hospital now being erected in Birmingham.

The open-air treatment of consumption adopted by the

Birmingham Board of Guardians at their infirmary on Spring Hill, which was started twelve months ago, has not been attended with much success.

The suicide of a Malvern schoolboy recalls the danger of the sale of cyanide to young people whether in moth-bottles or for photography. There is an enormous amount of cyanide sold in the Midlands for industrial purposes.

Birmingham pharmacists who remember Mr. Henry Glaisyer, LL.B., who conducted many successful "nitre" cases in years gone by, and is now Registrar, will be pleased to hear that his son has obtained a first-class in Part I. of the Law Tripos.

Some singular frauds that have been carried out in the West Bromwich district are being investigated by the police. A well-dressed man, representing himself as the relative of a well-known local resident, has induced shopkeepers to cash cheques for him which turn out to be worthless. Let this be an instruction.

Professor Frankland delivered his annual presidential address to the Birmingham University Chemical Society on June 17, before a large audience. His subject was "Radium from an Experimental Point of View," and by means of brilliant and highly successful experiments he showed the marked peculiarities of the metal.

The Birmingham "Mail" asks who but a chemist or a doctor ever remembers the antidote to any particular poison? Would it not, the "Mail" suggests, be an excellent plan if chemists were to print on their special poison-labels the proper antidote and a few instructions as to the best thing to be done when that poison has been accidentally or intentionally swallowed?

A party of pharmacy students, which included two ladies, assembled at the Edgbaston Botanical Gardens on June 20 and spent an enjoyable and profitable morning in viewing the botanical treasures. The curator informed the cicerone that three specimens of a valuable orchid which has been in the possession of the authorities for twelve years, and has not previously flowered—*Calogyne pandurata* (fiddle-shaped)—had recently been stolen. The plant was first found in 1852 by Sir Hugh Low growing on trunks of trees in swampy districts in Sarawak, Borneo. The authorities, in a letter to the "Post," ask the assistance of the public in bringing home to the perpetrators the enormity of their offence.

Morphine Suspected.

At the City Coroner's Court on Wednesday, Dr. F. J. Waldo held an inquiry respecting the death of John Holden Housden (59), a retired colonial-produce broker, who died on Monday at 21 Mincing Lane, E.C. From the evidence it appeared that deceased, while waiting in the offices of Messrs. H. Wisden & Sons, colonial brokers, at 21 Mincing Lane, E.C., asked a clerk for a glass. Shortly afterwards he was found sitting in a chair dead, and on the desk in front of him were a bottle and a glass, both practically empty. A son of deceased deposed that his father was in the habit of taking morphine, and the inquest was adjourned to allow an analysis of the viscera and the contents of the glass and bottle to be made.

The Week's Poisonings.

Only two of the eleven deaths that have occurred from poisoning during the week can be definitely stated to have been misadventures. One of these was a case of poisoning by caustic soda at Salford, the victim being John Hughes, a labourer at the Winterbottom Book-cloth Company's works. A fellow-workman obtained a solution of caustic soda for the purpose of cleaning his tea-jug. He left the solution in the jug on a window-sill, and Hughes drank it thinking it was tea. The other misadventure was at Spennymoor, where a young man, named Beel, took by accident a fatal overdose of laudanum. The ease with which cyanide of potassium is obtained (referred to under "Birmingham Notes") is exemplified in the fact that there have been three deaths from that deadly poison during the week. One took place at Malvern College, the victim being Gerald Harris (17), one of the students, who obtained $\frac{1}{2}$ oz. on the understanding that it was for the destruction of moths and beetles. The lad, who was in disgrace, took a large dose and died. Arthur Edmund Armistead (37), a commission-agent, committed suicide with potassium cyan-

ide at Sheffield. The third suicide was Ronald Charles Edward Ginders (42), a marine engineer, of Liverpool. Ginders, who had been irregular in his habits for some time, obtained 4 oz. of potassium cyanide from Mr. George Nelmes, chemist and druggist, 39 Fox Street, Liverpool, saying he wanted it for photography. He signed the poisons-book and the packet was labelled "Poison" by Mr. Nelmes, who cautioned deceased as to its poisonous properties. Deceased made a strong solution, drank it, and died.—Two strychnine-poisonings have taken place: at Ilford where the drug was taken in the form of rat-poison by Charles Catchpole, and at Dartmouth, where Ernest James Shillaber also took rat-poison containing strychnine. A Preston engine tender, named Richard Green, committed suicide with oxalic acid; and Grace Mobsby, wife of a grocer at Croydon, took a fatal quantity of the same poison. At Freemantle, near Southampton, on June 15, Mr. H. B. Tigar, a well-known chemist, poisoned himself with prussic acid. Mr. Tigar suffered from tubercular meningitis and was worried about business affairs. Louisa Chuter (34), a cook in the service of Dr. J. J. Powell, of Weybridge, was found dead in bed, and a *post-mortem* examination showed that death was due to belladonna-poisoning. Deceased occupied the house alone while Dr. Powell and his family were in France. In his evidence Dr. Powell said he had purchased a bottle of belladonna for his own use before leaving home, and had placed it, with some other drugs, in the housemaid's pantry. He did not use any of the belladonna, but when he returned home the bottle was less than one-third full. He (the doctor) believed deceased took the drug with the idea of relieving pain.

Irish News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Medicines Wanted.

A year's supply of medicines, leeches, and medical sundries is required by the Westmorland Government Hospital, Townsend Street, Dublin. Tenders are to be sent in on or before July 1.

Business Change.

Mr. George Brown, Dublin, has completed the alterations of his pharmacy, 139 Stephen's Green. The interior decoration was done by Mr. Cameron, of Merrion Row, who has made the pharmacy attractive and quite up to date.

Sheep-dip and Scab.

The report of the proceedings under the Diseases of Animals Acts for 1903, just issued by the Department of Agriculture in Dublin, states that the Committee appointed by the Board of Agriculture and Fisheries of Great Britain to inquire into and report upon certain points connected with sheep-dipping have nearly completed their investigations.

L.D.S. not L.S.D.

At a recent meeting of the Senate of Trinity College, Dublin, two new degrees were instituted—namely, Masters and Licentiates in Dental Surgery. Objection was taken to the abbreviated form of the latter, "L.D.S.," on the ground that it was a great deal too much like "L.S.D." to be in consonance with the dignity of the University of Dublin. That was Sir John Moore's opinion, but Professor Tyrrell held that "L.S.D." was a very good thing. After some discussion the degree was passed, as representing "Licentiatus Dentarie Scientiæ."

The Empties Difficulty.

The return of empties still remains a burning question in some of the unions in Ireland. At the Ballinrobe Union Messrs. Boileau & Boyd, Dublin, late medicine-contractors, wrote complaining that 8*l.* 10*s.* 6*d.* worth of empties were in the hands of the Guardians and requesting payment for same or the return of the empties. The Clerk said the Guardians were bound to have the empties packed and then notify the contractors that they were ready for removal. If they did not then remove them, it was their own loss.

Messrs. Thacker & Hoffe, Dublin, request the Manor-

hamilton Guardians to return the empties or for equivalent in money, 8s. 18s. 3d. Mr. White, Sligo, wrote in a similar strain, and the Guardians directed that the medical officers return the empties at once.

Discordant Analyses.

Some weeks ago the drug-analyst to the Banbridge Board of Guardians certified that a few drugs supplied by the contractors (Messrs. Ben. Clarke & Co.) were not up to the standard, but a report by Mr. Barklie, analyst, on samples of the same drugs forwarded by Messrs. Clarke & Co. stated that they were correct. When the conflicting reports were placed before the L.G.B. by the Guardians they wrote pointing out that in accepting the contract Messrs. Clarke agreed to be bound by the decision of the analyst employed by the Guardians and to regard such decision as final and conclusive. Accordingly the Clerk of the Banbridge Board informed the contractors that they take no responsibility with regard to the samples sent to Mr. Barklie.

The Use of Igazol.

The special committee appointed at the meeting of the Belfast Board of Guardians last week to report on the results of the decision of the Board to discontinue the use of igazol in the treatment of consumptive patients now report that the unfavourable condition of the patients referred to at the last meeting, and reported in the *C. & D.*, was deplorably increased, and that in several instances there was intense coughing, increased night-sweats, higher temperature, loss of spirits, loss of appetite, restlessness, &c. The increased temperature of the patients coincides with the stoppage of igazol. The committee also submitted particulars of several cures by this drug, and recommended the Board immediately to sanction the resumption of the use of the medicine. It was resolved to ask the L.G.B. to place the drug on the prescribed list with the view to avoiding a surcharge.

Scotch News.

Local newspapers containing marked items of news interesting to the Trade are always welcomed by the Editor.

Glasgow Notes.

A child eighteen months old has died in the Western Infirmary as a result of drinking ammonia-solution.

Among the automatic machines on a Clyde river-steamer there is one which supplies headache and anti-seasickness tablets!

Mr. Sutcliffe, of the British Optical Association, has been in Glasgow conducting his tutorial class for the B.O.A. examination.

The Glasgow Dental Hospital is now housed in its new and spacious premises at the corner of Dalhousie and Renfrew Streets.

The Cathcart Road early-closing arrangement has collapsed owing to the defection of one of the contracting parties. The arrangement has lasted barely a month.

The excursion is still leaving prints behind it. In several chemists' windows enlargements of snapshots taken at the Falls and Tillietudlem occupy the place of honour.

Mr. Thomas Nicoll, chemist and druggist, lately manager to Mr. M. Carmichael, Shawlands, has reopened the premises at 194 Battlefield Road, Langside, as a pharmacy.

Dr. Inglis Clark, of Edinburgh, figures as the winner of a 2*l.* prize in a local municipal photographic exhibition. The subject of the prize photo is "Ben Nevis from Alt a Mhuillinn."

Owing to Mr. T. Dunlop's regretted retirement and the defeat of one of the two local candidates, Glasgow has now only one direct representative on the Executive of the North British Branch.

The Glasgow Corporation has opened a depôt for the sale of sterilised milk for infant-feeding. The milk is mixed with water in proportions of the latter varying from one-half to one-third, and the average cost for each infant will be 2*d.* per day.

"Chemicus" protests in a local newspaper against what he calls the "absurd anti-spitting crusade." He urges that since expectoration is as natural a function as breathing, it is outrageous to seek to suppress it, and asks what

is to be done with the chemist and others who sell expectorants?

In a list of quaint and curious personal names compiled from the new Postal Directory those of two chemists appear, *viz.*, Japp and Tocher. The former has no connection with our allies in the East, and the latter means "dowry." The Peterhead tocher to pharmacy is a degree therein.

Business Changes.

Mr. Alexander Sheriffs, chemist and druggist, High Street, Ayr, has purchased the business at Troon formerly carried on by Mr. W. T. Chalmers.

Mr. D. F. MacDonald, chemist and druggist, Edinburgh, has taken the premises 25 Raeburn Place, which he will open as a dispensing pharmacy, leaving his 29 London Road place in charge of a qualified manager.

Education (Scotland) Bill.

The Aberdeen Pharmaceutical Association have issued a circular regarding this Bill and the discussion at their last meeting about how pharmaceutical education might be helped and developed by means of it. They communicated with Mr. Bryce, one of their members, who writes that the proposal to make pharmaceutical education one of the primary objects to which the Education Fund should be applied seems very reasonable, and agrees to bring it forward when the Bill gets into Committee. The object of the circular is to get individual members of the various Chemists' Associations to sign a letter to their members of Parliament, and forward it.

Cash would have been Cheaper.

Mr. A. P. Noble, chemist, Bonnyrigg, recently supplied a young man named James Robertson with a 3*l.* 10*s.* camera, which he never paid for. Robertson appropriated thirty-one pairs of boots, shoes, and slippers of his employer; and for this and obtaining the camera and other things under false pretences he was charged at the Edinburgh Sheriff Court on June 17. He got thirty days' imprisonment.

A Cinematograph Exhibition.

In the Edinburgh Sheriff Court on June 17 Sheriff Guy heard proof in the action for 100*l.* damages raised by John Carmichael, chemist, Leslie, Fife, against Fraser & Elrick, opticians and photographic dealers, Edinburgh, to which reference has previously been made in the *C. & D.* The pursuer arranged for two local concerts, with cinematograph exhibition, which the defenders were to supply, and when the time came something went wrong with the apparatus.

Edinburgh Chemists', Assistants', and Apprentices' Association.

A botanical excursion took place on Friday evening, June 17, and was conducted by Mr. William Duncan, F.C.S. Unfortunately, a smart shower of rain in the afternoon and somewhat dull and doubtful weather conditions militated against the attendance, but, notwithstanding, thirteen members travelled by the 8.30 train to Colinton and had a most successful and instructive spell of active field-work in the Dell and along the railway-bank to Slateford, operations being reluctantly suspended only when daylight failed. Among the plants gathered were *Cardamine impatiens*, with explosive siliqua; *Hypericum perforatum*, with translucent oil-glands on the leaf; and *Acer pseudo-platanus*, with golden foliage as in the famous Corstorphine maple or Scotch plane. A cordial vote of thanks was awarded to Mr. Duncan, and the party returned to town by train from Slateford at 10.32.

Edinburgh Chemists' Golf Club.

The third competition this year for the Gibson Handicap Medal was played over the Braids on June 15, with the following result:

1st. Mr. A. McCutcheon, 108—27=81.
Mr. Jas. Finlay, 89—5=84, and Mr. W. M. Manson, 90—6=84, tie for 2nd and 3rd places.
Mr. Geo. Robertson, 95—7=88, Mr. D. N. Wylie, 98—10=88, and Mr. Geo. Lunan, 100—12=88, tie for 4th place.

The Hole-and-Hole tournament for the "Connell Smith" putter which began in April has now reached the final stage. The finalists are Messrs. Jas. Finlay and W. M. Manson.

The "Bogey" Competition for medal presented by Mr. David Brown will be played on June 23, when a large turnout is expected.

Dundee Notes.

The surgical instrument department has become quite established here as an independent business. Messrs. Pettie & Whitelaw have just removed to a large double shop at 96 Nethergate.

An addition to the number of chemists' shops in the centre of the city will shortly be made, Mr. Henry Geake having arranged to take one of the fine new shops in Whitehall Street at a rent of 150*l*. It is to be fitted up in the best modern style.

East Stirlingshire Medical and Pharmaceutical Bowling Association.

Last year a number of the medical practitioners and chemists in Falkirk and the surrounding districts engaged in a bowling competition for prizes kindly given by Mr. Wm. Greig, of the New Apothecaries' Company, Glasgow. So successful was that competition that it created a pleasant spirit of *bonhomie* among all who participated in it, and the wish was then expressed that the meeting might be an annual one. That wish is about to be gratified, for on June 21 a meeting was held in the Crown Hotel, Falkirk, when it was unanimously resolved to form an association to be called the Eastern District of Stirlingshire Medical and Pharmaceutical Bowling Association. Mr. James MacNiven, chemist, Grahamston, an enthusiastic bowler (who is President this year of the Grahamston Bowling Club), presided over a representative gathering. The following were appointed office-bearers of the new Association: Hon. Presidents, Mr. Wm. Greig, Glasgow, and Mr. James Baxter, chemist, Grangemouth; President, Dr. Smith, Falkirk; Vice-President, Mr. James MacNiven, chemist, Grahamston; Secretary and Treasurer, Mr. John W. Bennie, chemist, Polmont Station; Committee, Dr. Stewart and Dr. McCracken, Grahamston, and Mr. Robert Sinclair and Mr. Andrew Forrester, chemists, Falkirk. A meeting will be held next week for the purpose of making the draw for the competition.

French News.

(From our Paris Correspondent.)

A LABORATORY-ACCIDENT, and the loss of an eye that resulted, have secured an annuity of 20*l*. (500*f*.) for life for M. Morais, a laboratory-assistant at the Practical School of Higher Studies, Paris. M. Dubreuil, an assistant professor at the University, has to pay, he being the involuntary cause of the accident through the explosion of a hydrogen-bottle he was manipulating. The case was tried a few days ago before one of the Paris Civil Courts, and the plaintiff tried to make the State civilly responsible for the accident, but did not succeed on that point.

PARIS SOCIETY OF PHARMACY.—At this month's meeting of the Society M. Landrin announced the death of M. Guichard, a former President of the Society. Letters of acknowledgment and thanks were read from Messrs. Atkins and Idris on the occasion of their election as foreign members of the Society. It was remarked that by the election last month of Professor Bourquelot as a honorary member of the Pharmaceutical Society of Great Britain, there are now four French members of that Society, the other members being Professor Guignard, Professor Moissan, and M. Arthur Petit, to the distinguished merits of each of whom the *C. & D.* has frequently had occasion to call attention.

PASTEUR'S MONUMENT AT PARIS.—The inauguration of Pasteur's memorial next month on the Place de Breteuil, Paris, will in all probability take the form of a striking demonstration of quite a national character. President Loubet has signified his intention of being present, and the chemists of the Pasteur Institute will also take a leading part in the proceedings. The Government and other official bodies, as well as the arts and diplomacy, will also be prominently represented. The French nation delights to do honour to the memory of her most brilliant sons, and in this case it is the Ville Lumière that accepts the charge of the principal memorial to one of the most distinguished scientists the world has known.

POTENT REMEDIES AND MINERAL WATERS.—At the last meeting of the Paris Academy of Medicine, the President announced that he had been officially informed of the adhesion, without reserve, of Spain, Norway, and Switzerland to the International Commission on "heroic" medicaments.—In the name of the permanent Committee of Mineral Waters, M. Chaffard proposed at the same meeting the renewal of the vote passed in 1892 concerning the formalities to be observed in taking samples of mineral waters in France for the purpose of official analyses. These analyses take place twice a year—in spring and autumn. The regulations were duly voted stipulating that the samples of waters should be taken under the supervision of a properly authorised official, who should take note of the conditions under which the samples were taken.

Colonial and Foreign News.

IN A RIOT which broke out at a fire in a Warsaw chemical-factory on June 17 a party of Cossacks fired two volleys at the workmen, killing one and wounding three. Ten policemen were injured by stones.

THE INDIGO-PATENT CASE.—Mr. Eugene Schrottky, the defendant in the indigo-patent case reported in last week's *C. & D.* (page 955), writes to the "Indian Planters' Gazette" that "he has every intention of appealing, and if he loses on appeal, will take the case home."

PHARMACY-REFORM IN GERMANY.—A correspondent sends us a brief report on this subject, which is substantially a record of rumours quite indefinite in nature, and drawn from lay papers. The most important statement is that the Bill to abolish the concession-system in Prussia will be ready this year, and that 1,500,000*l*. will be required to carry out the reform should the Bill be enacted.

RUSSIAN PHARMACY STATISTICS.—According to the "Pharmatzevticheski Journal" in the working year 1903-4 there were in Russia 3,607 pharmacies with branches. In this figure homoeopathic pharmacies and Finland pharmacies are not included. "Normal" pharmacies numbered 2,231, and of these 1,536 belonged to qualified men and 613 to non-pharmacists. The Government and provincial public pharmacies numbered 155, and charitable ones 17.

SOAP IN ITALY.—The commercial *attaché* to H.M. Embassy at Rome, in his report on the industrial development of Italy, remarks that the quantity of soap imported is still three times in excess of the amount exported; but the increasing importation of soda, fats, and other ingredients used in the manufacture of soap is a sign that the industry is beginning to develop, though it will doubtless be many years before it can be in a position to supply the demands of the home market.

IMPORT-DUTIES ON ALCOHOL.—A writer in the "Apotheker Zeitung" states that since October, 1902, an inconsistency has existed in Germany in regard to spirit-duty. Now dutiable spirit only may be used for manufacturing alcoholic medicines, but the Customs-duty for such medicines is only 20*m*. per 100 kilos., consequently imported stuff may be sold in Germany at considerably cheaper prices than by home manufacturers. This has given rise to the curious practice (according to the Imperial Chancellor) that German manufacturers now export alcoholic medicines in bond, and re-import them again, thus paying only the smaller import-duty. Attempts are also made to import, under the designation of "remedies," alcohol to which small quantities of medicaments have been added. The Imperial Chancellor has instructed the central finance officials of all the German Federal States to request the Customs authorities to test the accuracy of any declaration respecting alcoholic medicines, the official chemists being entrusted with this duty. To help them in this a "constants and properties" table has been compiled. This deals with twenty-one tinctures and eleven spirits and fluid extracts, giving the percentage by weight of alcohol, the same as determined by the alcoholometer, the specific gravity, and percentage of extractive. Our contemporary points out that this is the first time that official figures for the assay of alcoholic preparations have been published in Germany.

African News.

(From our own Correspondents.)

Note.—THE CHEMIST AND DRUGGIST is regularly supplied by order to all the members of all the Pharmaceutical Societies in British South Africa, viz.:

SOUTH AFRICAN PHARMACEUTICAL ASSOCIATION.
PHARMACEUTICAL SOCIETY OF CAPE COLONY.
NATAL PHARMACEUTICAL SOCIETY.
TRANSVAAL PHARMACEUTICAL SOCIETY.
RHODESIA PHARMACEUTICAL SOCIETY.
NORTHERN DISTRICT CHEMISTS' ASSOCIATION.
PHARMACEUTICAL SOCIETY OF ORANGE RIVER COLONY.

Cape Colony.

PLAGUE continues to appear at the various centres in South Africa. Port Elizabeth, Durban, and Johannesburg are all declared as infected, and that fact is established by the death-rate. In a densely populated peninsula-suburb rats are reported to be dying of the disease.

I NOTICE from the advertisements in the *C. & D.* (writes a Kimberley correspondent, in a letter dated May 30) that summer is near you; we are enjoying winter. Our climate is almost perfect at present. We have had a very exciting time over the Medicine-stamp Bill, which is now shelved. We are not quite sure how the spirit-duty will affect us, as no one at present understands how it will be worked. We have just formed a St. John's ambulance class here for members of the Northern District Chemists' Association only. Business is slow—very!

IMPORTED TINCTURES.—A duty of 15s. per proof gal. on all spirit has been agreed upon by the various Governments composing the South African Customs Union, and it will come into force, as will the local Excise-duty of 6s. per gal. on colonial spirits, on July 1 next. Tinctures will therefore pay this, instead of 7½ per cent. as hitherto, after that date. Our Cape correspondent asked the authorities what they propose doing with fluid extracts, and was at first informed that these would be treated under the *ad valorem* rate as hitherto, but later the Customs authorities altered their minds, and stated that no positive information could be given on this point for the present. One thing has been settled, and that is the question of flavouring-essences. There is a special clause in the tariff for these, and this can only be altered when the present understanding expires two years hence. The duty of 20 per cent. on British flavouring-essences will therefore remain in force. The Union are finding the tariff they framed at Bloemfontein more difficult to administer every day it is in operation, and there is not a single official who understands or pretends to understand it so far as its bearings on medicines are concerned. There is no doubt that a simplified one will come into operation after the term of the present understanding expires between the Governments interested.

Matabeleland.

MR. A. J. RIVETT, a director of Lennon (Limited), paid a flying visit to Bulawayo at Whitsuntide. His stay was so brief that our Bulawayo correspondent laments that he had no opportunity of eliciting Mr. Rivett's opinions on trade in general and that of Bulawayo in particular.

Orange River Colony.

WINTER is now commencing, and the trade in winter goods is looking up.

MR. FRANK WHITTAKER (Minor certificate, October, 1898) has been registered as a chemist in the Colony.

SEVERAL burglaries have occurred in Bloemfontein recently, among the places entered being Messrs. Heynes, Mathew & Co.'s shop in Market Square. The burglars were evidently disturbed, as nothing was taken.

A NEW CHEMIST'S SHOP has recently been opened in Harvey Road, Bloemfontein, near the Kaffir Location, and it is rumoured that a branch business in the Railway Camp has recently changed hands, or is about to do so.

WRITING on May 30, a Bloemfontein correspondent records a visit from Mr. H. Magness Elgar, of Cape Town, who looks after Messrs. F. Stearns & Co.'s interests, as well as from Mr. J. L. Beull, of Parke, Davis & Co., of Detroit and London.

Portuguese East Africa.

ACCORDING to a recent issue of the "Barberton Herald," the Mozambique Company of Beira, which under its charter practically holds supreme governing rights, recently sought to increase its revenues by imposing a new licence of 30l. on traders for the sale of patent medicines in general stores. Foiled in this, they endeavoured to compel all dealers in these goods to engage the services of a qualified chemist. The "Beira Post" says this action would be amusing were it not so serious. "Imagine," says the "Herald," "the certificated chemist carefully analysing a box of 'Dr. Brown's Blue Beans' or somebody's patent cough-mixture before handing same to a customer; or imagine the customer requiring a bottle of 5-gr. quinine tablets kept waiting for the chemist who had gone out. We doubt if in any other part of the world the Government could ever bring themselves to demand that a qualified chemist be employed by every store selling Eno's fruit-salt or Beecham's pills! The licence of 80l. per year paid by storekeepers in Beira was held to cover the right to sell all commercial products, and on the submittal of the facts to the Courts the attempt was frustrated, and the three important firms who had been criminally charged were honourably acquitted."

NATAL PHARMACEUTICAL SOCIETY.

THE annual meeting of this Society was held in Durban on May 19, the President (Mr. G. A. Champion) in the chair. Apologies for non-attendance were received from Messrs. A. Lomax (Richmond), W. T. Hamp (Lady-smith), C. West Handley (Greytown), F. P. Hamlin and G. Lacombe (Durban). The Hon. Secretary (Mr. S. K. Elgie) presented the balance-sheet, showing a balance in hand, and then read the

ANNUAL REPORT,

in which he stated that, owing to the general depression in business circles throughout South Africa during the past year, those engaged in pharmacy had felt the necessity of bearing their share of diminished business. He considered that there were distinct signs of improvement in the near future, now that the Labour Question had been definitely settled. He referred to the new borough by-law dealing with the adulteration of food and drugs, and mentioned that the borough analyst had been kind enough to place his services at the disposal of the Society in the matter of giving lectures on the most likely adulterations among the drugs and chemicals in common use. The Society had been approached by the Pharmaceutical Society of Rhodesia regarding matters of common interest to pharmacists in South Africa, among other items being the practice of sending out from the United Kingdom certain patent medicines unstamped, regulations relating to company trading, the advisability of having a general price-list, &c. One of the most important matters which had arisen was the question of

COUNTER-PRESCRIBING

as brought forward by the Natal Medical Council. Very strong views were held by some of the medical men in the Colony with regard to this very common practice among chemists—so much so that in one case legal proceedings were threatened. As the matter had come before the Pharmacy Board, no doubt some *modus vivendi* would be found.

The President, in moving the adoption of the report, dealt at length with the subject of counter-prescribing, and the meeting having fully discussed the topic, the following resolution was carried unanimously:

That in the opinion of this meeting counter-prescribing by chemists for simple ailments is unavoidable, and therefore this meeting does not consider that the practice should be discontinued.

BUSINESS DETAILS.

It was resolved that the annual subscription to the Society be half a guinea from May, 1904.

The election of officers for the session 1904-5 resulted as follows: President, Mr. G. A. Champion; Vice-President, Mr. F. Turner; Committee, Messrs. Ryan, Charlton, Fawcett, and Anderson; Hon. Secretary and Treasurer, Mr. S. K. Elgie; Auditors, Messrs. Forth and Johnston.

Pharmaceutical Society of Great Britain.

NORTH BRITISH BRANCH.

THE Executive met at 36 York Place, Edinburgh, on Friday, June 17, Mr. D. B. Dott in the chair.

Intimation having been made of the resignation of Mr. Thomas Dunlop, Vice-Chairman, through ill-health, it was agreed, on the motion of Mr. GILES (Aberdeen), seconded by Mr. J. P. GILMOUR (Glasgow), to send a letter to Mr. Dunlop regretting his retirement, and expressing sympathy with him and appreciation of his services.

Mr. J. R. HILL (Assistant-Secretary) laid on the table the report of the scrutineers of the voting-papers for the election of the new Executive.

COLLECTING SUBSCRIPTIONS.

The ASSISTANT-SECRETARY intimated that he had received from Mr. Bremridge a reply regarding the recommendation sent up to the Council by the Executive as to the desirability of reverting to the former practice of collecting the annual subscriptions. Mr. Bremridge stated that the General Purposes Committee had considered the matter, and reported that it could not see its way to advise the Council to adopt the recommendation. The Assistant-Secretary added that he had received from the Secretary on May 13 a list of thirty-three names of Scottish members who had not paid their subscriptions at that date. In adjusting the statistics for issuing voting-papers there was a list of thirty-one secessions in Scotland during the last year.

Mr. CURRIE said he supported the resolution of the Executive very strongly at the General Purposes Committee, and he had a good deal of support; but Mr. Newsholme had his pet scheme of local organisation, which he was working for all it was worth, and he seemed to think it ought to have a chance before any change was made. He (Mr. Currie) was of opinion that it is not working so satisfactorily as they might expect, and that in a year or two they would revert to the old system. In the meantime he would keep pegging away at it.

The ASSISTANT-SECRETARY reported on certain matters in the premises requiring the attention of the General Purposes Committee, and stated that in regard to the Local Government Board's report about poor-law dispensing he had received a number of communications from Mr. Spence. Discussion on the matter was adjourned till next meeting.

THE UNIVERSITIES AND THE PHARMACEUTICAL DEGREE.

The ASSISTANT-SECRETARY said he had received from Mr. Strachan an excerpt from an Aberdeen paper intimating that the Clerk of the University Court of Aberdeen University, at a meeting on Tuesday, June 14, submitted a report regarding the proposed regulations for the degree in pharmacy—B.Sc. (Pharm.); and that the Court approved of the regulations generally, subject to verbal alterations made on Clause 16. Mr. Hill said he knew the subject was being considered by the other universities, as they had written asking him for additional copies of the Ordinance. He had not received a reply from any of them yet. He explained that Clause 16 deals with the doctorate of science. There had been some readjustment of the wording, but a verbal alteration could not be of any substantial importance.

A PERTINENT APPLICATION.

Mr. GILES called attention to Sir John Batty Tuke's motion for a return of companies registered for the purpose of carrying on medical and dental practices, and moved—

That this Executive recommend the Council to take what steps may be necessary with the view of getting companies registered under the Companies Act, 1862, practising pharmacy, or proprietors who are not qualified chemists, included in the remit promised to Sir John Batty Tuke.

The ASSISTANT-SECRETARY explained how Sir John Tuke's motion arose and what the result of it would most likely be, and some conversation ensued, Mr. BOA and Mr.

GILES taking part; and as a result it was agreed, on the motion of Mr. GILES, seconded by Mr. KERR—

That the Executive recommend that the Council endeavour to have Sir John Batty Tuke's motion extended to include companies carrying on the practice of pharmacy, and that in the meantime Sir John Batty Tuke be approached with the view of securing his consent.*

The ASSISTANT-SECRETARY reported that Professor Bower had intimated that an engagement he had in America might prevent him from being present at the quarterly examination in October, and the meeting authorised the committee, if it became necessary, to appoint an examiner in botany for that occasion.

The meeting then terminated.

ANNUAL MEETING.

A meeting of members of the Society resident in Scotland was held in the board-room afterwards, Mr. Dott again presiding. There was a good attendance.

The CHAIRMAN gave

A RÉSUMÉ OF THE EXECUTIVE'S WORK

during the year. He stated that attention had been given to the question of local organisation in the way of securing a full list of nominations for the position of divisional secretary in the various districts, and he wished to acknowledge the services rendered by these officers during the year. The present organisation had proved itself most efficient. The annual report, which had been sent to all the members, showed that the suggestion made by the Chairman at the last annual meeting that it would be advisable, in the event of the Pharmacy Bill being again introduced into Parliament, to have it backed by Scottish members had been carried out. Much valuable assistance had also been rendered by interviewing Parliamentary representatives and explaining the Bill to them, and getting their promise to support the second reading. It would be too much to say that the education had been all on one side, for in interviewing members of Parliament their own men had learned much as to the way in which legislators look at their proposals, and as to the possible modifications and adjustments of the terms of the Bill which might be insisted on if it came up for discussion in the House of Commons. There seemed no prospect of the Bill being debated this Session. The whole situation might be changed at any moment by the appearance of the Government Poisons Bill in the House of Lords. There had been various rumours as to negotiations between the Government and the Council of their Society on the subject, and if such negotiations had taken place it was right that they should, and the results ought to be most beneficial. Scottish chemists had been a little amused to read the evidence given before the Departmental Committee of the Privy Council by the witness speaking for the Scottish Chamber of Agriculture, and also by the remarks made at some of the meetings of the Chamber. It so happened that chemists were in not a few cases members of local agricultural associations throughout Scotland, and had been able to dispel the misconceptions on which the alleged grievances mentioned by the Scottish Chamber of Agriculture were founded. It had been thought that if the Scottish Chamber of Agriculture could be got to formulate their objections to the Pharmacy Bill it would not be difficult to persuade them that there is no ground for their opposition, and it had therefore been proposed that the Executive might seek to have that done. The Chairman then touched upon the matter of how the Society's annual subscriptions are collected, and the resolution of the Executive about it, and from this proceeded to discuss the proposed University degree of B.Sc. in Pharmacy and the quarterly examinations of the Board of Examiners for Scotland. He said candidates for the Major examination had been more successful than in the previous year, 44.4 per cent. having passed, as compared with 40 per cent. in 1902-3. Recently there had been a proposal to divide the examination into two sides—the biological and the chemical—and this had long had the support of the Board of Examiners in Edinburgh, but had not hitherto been regarded favourably by the London Board or the Council.

* This is too late. Sir John Tuke obtained the consent of the House to his motion on June 17.—EDITOR.

Were such a division made it would probably induce a larger number to enter and secure a better honours examination. It was much to be regretted that the report indicated a still further diminution in the percentage of passes in the Minor examination, which now stood at the low figure of 32 per cent. This required serious looking into, with a view to discover the cause of this lamentable result. Many suggestions had been made for the division of the Minor examination, and there seemed no good reason why such a scheme should not be adopted so as to relieve the congestion from which students undoubtedly suffer under the present plan. It was said they must precede division by a compulsory curriculum, but he did not see the logic on which such a suggestion was based. It was also said legislation is required to enable them to divide the examination. There is just as little logic in that view. There is nothing in the Charter or Acts of Parliament stipulating any particular time at which a candidate should be examined in the requisite subjects. No doubt a recognised curriculum in a properly equipped school or college would be a great advantage, but should not exclude consideration of any other proposal which might immediately ameliorate the condition. After a reference to the scientific meetings and the increase in the circulation of books, the Chairman said when the nomination-papers were issued there were 677 members on the roll, but after purging it and removing the names of all who had not paid their annual subscriptions, the number stood at 646. Last year the number was 626, so that there was an increase of twenty. The Chairman also referred to the Medicine-stamp Act and Mr. Dunlop's retirement, and concluded by thanking Mr. Rutherford Hill for the faithful assistance he had given him.

THE SCRUTINEERS' REPORT.

The ASSISTANT-SECRETARY submitted this report, which stated that 677 nomination-papers had been issued, and the returns showed that fifty-seven members had been nominated, of whom twenty-three had signified their willingness to act if elected. A voting-list was accordingly drawn up, and 646 voting papers were issued. The result of the work of the scrutineers was that of the 646 papers issued 250 were returned, of which two were informal, making 248 votes to be recorded. The following seventeen gentlemen received a majority of votes:

David Brown Dott, Edinburgh	...	...	...	231
Peter Boa, Edinburgh	...	...	...	223
James P. Gilmour, Glasgow	...	...	...	218
John Tocher, Dumfries	...	...	...	213
William Doig, Dundee	...	...	...	205
Charles Kerr, Dundee	...	...	...	199
W. B. Cowie, Edinburgh	...	...	...	198
Donald Mitchell, Inverness	...	...	...	197
Alex. Strachan, Aberdeen	...	...	...	197
William Cummings, Dundee	...	...	...	195
William Giles, Aberdeen	...	...	...	195
James Nesbit, Portobello	...	...	...	193
John H. Fisher, Dunfermline	...	...	...	187
Alex. Spence, Linlithgow	...	...	...	186
Andrew Naysmith, Arbroath	...	...	...	181
William Potter Wilson, Haddington	...	...	...	173
James A. Russell, Greenock	...	...	...	119

The following six gentlemen were the unsuccessful candidates:

Archibald Currie, Leith	...	...	...	100
David Watson, Glasgow	...	...	...	96
Patrick Mitchell, Dumbarton	...	...	...	92
Alex. John Clark, Edinburgh	...	...	...	73
Alex. McCutcheon, Edinburgh	...	...	...	62
James Anderson, Edinburgh	...	...	...	41

The report was signed by Mr. D. B. Dott, Dr. George Coull, Mr. R. L. Hendry, Mr. William Lyon, and Mr. John Robertson. Mr. BOWMAN moved the adoption of the report, which was seconded by Mr. ROWLAND, and agreed to.

The CHAIRMAN then declared that the Executive for 1904-5 consist of the above seventeen gentlemen, together with the President of the Society (Mr. R. A. Robinson), the Vice-President (Mr. J. Rymer Young), Mr. W. L. Currie (Glasgow), and Mr. David Storrar (Kirkcaldy). It was agreed to hold the first meeting of the Executive on Friday, June 24.

Mr. C. F. HENRY moved a vote of thanks to the Chair-

man, and commented on the terse and practical suggestions and advice he had delivered to them in his address. This was all the business.

JACOB BELL SCHOLARSHIPS.

The examination for these scholarships was held on Tuesday, June 21, when the following papers were set:

LATIN.

1. Translate into English:
"Ergo age, care pater, cervici imponere nostrae;
Ipse subibo humeris, nec me labor iste gravabit;
Quo res cumque cadent, unum et commune periculum,
Una salus ambobus erit. Mihi parvus iulus
Sit comes, et longe servet vestigia coniunx.
Vos, famuli, quae dicam, animis advertite vestris.
Est urbe egressis tumultus templumque vetustum
Desertae Cereris, intusque antiqua cupressus,
Religione patrum multos servata per annos.
Hanc ex diverso sedem veniemus in unam."
2. Translate into English:
(a) Sulphur Lotum vel Depuratum. Sulphur sublimatum abluatur primum aqua communi repetita vice, demum aqua destillata, donec ab acido adhærente perfecte liberum sit. Tum siccetur et per cribrum trajectum in vase idoneo servetur. Sit pulvis citrinus. Sulphur præcipitatum autem, vulgo Lac Sulphuris dictum, pulvis est è pallido flavus, ope acidi paratus.
(b) Augeatur pedetentim dosis.
(c) Ferri redacti grana tria è quovis vehiculo crasso, electuarii instar, subinde sumenda.
3. Parse fully:
"Ergo age, care pater, cervici imponere nostrae."
4. Translate into Latin:
Pertinax, when the government was offered to him, said that he was old and infirm, and that he did not wish to undertake so great an office. At length he was persuaded by the senate and people, who saluted him with the names of Emperor and Augustus. He reigned, however, only eighty-seven days, for a sedition having arisen amongst the praetorian legion, he was slain by a turbulent soldier, in the year 193 after Christ.

ENGLISH.

1. Parse fully:
"And deeper than did ever plummet sound
I'll drown my book."
2. Write a short essay on one of the following subjects:
(a) The pleasures of travel in modern times.
(b) Ancient and modern warfare.
(c) "Men at some time are masters of their fate."
- ARITHMETIC.
1. A bankrupt's debts are 7,500*l.*, and his assets are 4,140*l.* How much can he pay in the £ after defraying the expenses connected with the bankruptcy, which amount to 8 per cent. of the debts?
$$2.375 \quad 4.4 \quad 8.8 \quad 4$$

2. Simplify $\frac{3.16}{0.0625} \div \frac{7}{5.625}$
3. A wine-merchant buys 1,000 litres of wine at 3.75*fr.* a litre, and sells it all at 15*sh.* a gallon. Express approximately in English money how much he gains.

FRENCH OR GERMAN.

FRENCH.

1. Translate into English:
Au-dessus, on voit une vaste forêt de cèdres antiques, qui paraissent aussi vieux que la terre où ils sont plantés, et qui portent leurs branches épaisses jusque vers les nues. Cette forêt a sous ses pieds de gras pâturages dans la pente de la montagne; c'est là qu'on voit errer les taureaux qui mugissent. Les brebis qui bêlent, avec leurs tendres agneaux, bondissent sur l'herbe. Là coulent mille ruisseaux d'une eau claire. Enfin on voit au dessous de ces pâturages le pied de la montagne, qui est comme un jardin: le printemps et l'automne y règnent ensemble, pour y joindre les fleurs et les fruits.

2. Translate into French:
They were cold: suddenly they saw a hut nearly buried in the snow—how lucky they had been to come across it! The door was open; they entered. After lighting a fire, they threw some wood upon it, and sat down. Though the little boy was hungry, he thought of the danger from which he had escaped. He thought of the forest, of the white trees, of the deep silence of the night. He fell upon his knees, and thanked God.

GERMAN.

1. Translate into English:
Ein Landmann war zum ersten Mal in seinem Leben ins Schauspielhaus gegangen. Das Theater ist finster und stellt einen Saal in einem alten Schlosse vor. Plötzlich kreuzen

sich Blitze am Himmel und werfen ihr grelles Licht durch die hohen Fenster in den Saal. Da aber stürzt einer der Schauspieler auf die Bühne, schüttelt seinen Mantel, und ruft: "Ach! welch' ein furchtbarer Hagelschlag!" "O weh!" seufzt erschrocken der Landmann, "unsere armen Weinstöcke! Da muss ich geschwind nach Hause!" Dabei steht er auf und verlässt eilig das Haus. Freilich war er, auf die Strasse gekommen, nicht wonig, erstaunt zu sehen, dass der prächtigste Mondschein herrsche.

2. Translate into German:

They were cold: suddenly they saw a hut nearly buried in the snow—how lucky they had been to come across it! The door was open; they entered. After lighting a fire, they threw some wood upon it, and sat down. Though the little boy was hungry, he thought of the danger from which he had escaped. He thought of the forest, of the white trees, of the deep silence of the night. He fell upon his knees, and thanked God.

Three hours was allowed for the foregoing, and two hours for the following:

CHEMISTRY.

1. What is specific gravity? How would you proceed to determine the sp. gr. of (a) a liquid; (b) a solid insoluble in, and heavier than, water?

2. What tests would you apply to identify the following substances?—(a) Magnesium sulphate; (b) ammonium chloride; (c) potassium iodide.

PHARMACY.

1. Describe and explain the process for preparing one of the following preparations: (a) Liquid extract of coca; (b) green extract of belladonna; (c) syrup of iodide of iron.

2. Discuss the different processes of distillation with which you are acquainted, and give B.P. products made by them.

BOTANY.

1. What is cell-sap? Where does it occur, and what does it contain?

2. (a) What is a rhizome, and how is it distinguished from a root? (b) What is a corm? and a bulb? How are they distinguished from each other? Give examples of each.

Trade-marks Applied For.

Objections to the registration of any of the undermentioned applications should be lodged with C. N. Dalton, Esq., C.B., Comptroller-General of Patents, Designs, and Trade-marks at the Patents Office, 25 Southampton Buildings, Chancery Lane, London, W.C., within one month of the dates mentioned. The objection must be stated on Trade-marks Form J, cost £1, obtainable through any money-order office.

(From the "Trade-marks Journal," June 15, 1904.)

"TARTETTE" ("Tart" disclaimed); for cream of tartar, tartaric acid, and substitutes therefor. By the Pure Chemical and Spice Company, Tower Buildings, 22 Water Street, Liverpool. 263,237.

Picture-device (soldier swinging with help of pigtailed of two Chinamen); for perfumery, &c. By F. W. Seymour, 31 High Street, Bedford. 261,504.

(From the "Trade-marks Journal," June 22, 1904.)

"TYPOPHOR" ("Typo" disclaimed); for goods in Class 1. By the Badische Anilin- und Soda-Fabrik, Ludwigshafen-on-Rhine, Germany. 263,304.

Device, and the word "PURIFEX" ("Pure" disclaimed); for a chemical anti-incrustator. By the Sea-water Purifying Syndicate (Limited), 52 Gracechurch Street, E.C. 260,562.

Wheel device, and the letters "R. P. C.," for photographic plates and films, and for sensitised paper, &c. By the Rotary Photographic Company (Limited), 14 New Union Street, Moorfields, E.C. 263,064/5.

Device of a whippet's head, and wording "NEVER FAIL"; for dog-pills. By G. Whitbread, 200 Romford Road, Forest Gate. 262,386.

Label device, with picture of Lifeguardsman; for disinfectant-soap. By C. J. Davies, Cedar Holme, Wellington Square, Cheltenham. 263,413.

"CREOSALGEN" ("Creosol" disclaimed); for chemicals. By C. J. Hewlett & Son, Charlotte Street, Great Eastern Street, E.C. 263,587.

"PILDORAS DE BRANDRETH"; for pills. By the Alcock Manufacturing Company, 22 Hamilton Square, Birkenhead. 262,505.

"KAVAMIN" ("Kava" disclaimed); for chemicals. By I. Bernhardt, 21 Constantin Strasse, Leipzig, Germany. 263,134.

"NORCON"; for chemicals. By E. W. Norris and J. B. Connell, 8 Dunsany Road, Shepherd's Bush, W. 263,246.

Deaths.

ALCOCK.—At 285 Queen's Road, Manchester, on June 18, Mr. James Henry Alcock, chemist and druggist, aged sixty-nine.

BREMIDGE.—Mr. Elias Bremridge, one of the kindest men ever connected with British pharmacy, passed to his rest on June 15, at the ripe age of ninety-three years. He died at 182 Haverstock Hill, N.W. The present generation of chemists scarcely knew the veteran who was the first Registrar under the Pharmacy Act of 1868, as he resigned the position twenty years ago, but there are still a few in the trade who can tell of the great ability which Mr. Bremridge brought to the work of the secretaryship of the Pharmaceutical Society of Great Britain when he was,



in March, 1857, during Mr. Jacob Bell's last presidency, appointed to succeed George Walter Smith. He was then connected with a City house, and had done good service to several of the Councillors in making straight the sad muddle which the Society's business got into during Mr. Smith's mental illness, so that it was natural for the Council to select him for the position when Mr. Smith resigned. Mr. Bremridge had been associated with the Society from its inception in 1841 as one of the first to respond to the appeal of the founders. He had been apprenticed to Mr. William Froome, an Exeter apothecary-druggist, and had an intimate knowledge of pharmacy and the drug-trade. The earlier years of his secretarial work were hard. As was well said by Mr. Carteighe, at one time Mr. Bremridge "did the whole work of the Society with his own hands and head; he was in those days the Society's officer, clerk, and general factotum." Under such conditions, and the quiet that followed the 1852 enactment, Mr. Bremridge's efforts were hidden in the comparative obscurity which characterises the work of those who have to formulate and plan methods of conducting national business. But in 1862 he had a political chance which he grasped tightly and did not let go until he secured the first substantial recognition by the State of the pharmacist's position—viz., exemption from jury-service. This was given to pharmaceutical chemists only, because no other pharmacists were then registered, and the fact that Scotch pharmacy leaders failed to secure the privilege throws Mr. Bremridge's achievement into relief. In the attempts which were made soon after to get a new Pharmacy Act Mr. Bremridge also played an important part with diplomatic skill, and he had his reward when the 1868 Act passed. Then he entered on a new field of

work, in all respects more onerous, and it seemed to call forth fresh abilities. No truer words are on the records of the Society than those which the Council passed in July, 1884, when his resignation was accepted :

That in consideration of the zeal and unceasing devotion with which for so many years Mr. Elias Bremridge has fulfilled the duties of his office, he be permitted to retire from the position of Secretary and Registrar on a pension of 400*l.* per annum.

His only son, Mr. Richard Bremridge, who had for many years acted as Assistant-Secretary and Deputy-Registrar, succeeded to the position. Since then Mr. Elias Bremridge had lived in retirement, but always in touch with London, and, although rather deaf, he enjoyed a chat with any old friend. He had married a second time late in life, but Mrs. Bremridge died a year or two ago. He is survived by his only son and two daughters. The funeral took place at Norbiton Cemetery, near Kingston, on Saturday, June 18. Mr. Bremridge was buried in a grave near one where his two wives lie. The chief mourners were Mr. Richard Bremridge, two sons-in-law of the late Mr. Bremridge, and Mr. C. B. Allen. Among others present at the graveside were the President and Treasurer of the Pharmaceutical Society, Mr. Albert Cooper, Mr. W. S. Glyn-Jones, and Mr. A. C. Wootton (members of the Council), several members of the Pharmaceutical Society's staff, Mr. Higgs (of Kingston), Mr. Goldfinch (of Hendon), and other friends who had known Mr. Bremridge in various relations of life.

KING.—At Mandalay, Burmah, on May 17, Mr. Alexander William King, chemist and druggist, partner in the business of Curtis & Co., chemists, Mandalay, aged thirty-nine years. Mr. King was a native of Ayr, and served his apprenticeship with Bailie Burns, chemist, there. He passed the Minor examination in 1885, and soon thereafter went out to Mandalay, where in time he became a partner with Mr. John Guthrie in the business of Curtis & Co. He was an active Freemason. His death was due to apoplexy. The funeral was very largely attended, "people of all sorts and shades of opinion, and many nationalities and religions, turning out to pay their last respects to a truly worthy man. The Masons also turned out and gave Masonic honours." Mr. King was married, and leaves four children.

MADGWICK.—At Andover, on June 13, Mr. Rufus Madgwick, chemist and druggist, of Bridge Street, Andover. Mr. Madgwick had been in business in Andover for a great many years, succeeding his brother, the late Mr. W. R. Madgwick. He was seized with paralysis a fortnight ago whilst out walking, and never recovered. Mr. Madgwick was unmarried.

STOKOE.—On June 19, at Manchester, Mr. William Stokee, the Manchester representative of Messrs. Oldfield,

Pattinson & Co., wholesale druggists, Manchester. Mr. Stokee was apprenticed in 1854 to Messrs. Glazier & Pingley (afterwards Glazier & Taylor), and left them to represent Messrs. John Reddish & Co., where he remained for about ten years. He then went to represent the late Mr. William Mather in the interests of the drug department under Mr. Oldfield, and on the death of Mr. Mather he took service with Messrs. Oldfield, Pattinson & Co., who purchased the business, remaining their representative until his decease—about twenty-five years. Mr. Stokee was a man of marked peculiarities, but he had made many

friends, by whom, as well as by his employers, he will be much missed. He leaves a family of six, all grown up.

TIGAR.—At Park Road, Freemantle, Southampton, on June 15, Mr. Hardwick Brigham Tigar, chemist and druggist, aged fifty-four.

Recent Wills.

CORFE.—The will of the late Mr. Alfred Felix Corfe, chemist and druggist, who died on December 11, at St. Catherine's, Queen's Road, Maidstone, has been proved at the Principal Probate Registry, by Martina Mary Jane Corfe, of St. Catherine's, the widow, and Alfred Frederick Corfe, 5 Gabriel's Hill, Maidstone, chemist and druggist, son of the deceased, and George Herbert King, 3 Gabriel's Hill, clothier, the executors named in the will. The gross amount of the estate is valued at 13,916*l.* 3*s.* 7*d.*, and the net personalty 5,858*l.* 16*s.* 1*d.*

DERBYSHIRE.—The will of the late Mrs. Louisa Derbyshire, who traded as a chemist at Newby Street and 220 Great Homer Street, Liverpool, has been proved at 1,465*l.* gross.

GORDON.—The late Mr. Frederick Gordon, chairman of the Gordon Hotels, and a director of A. & F. Pears, Bovril, chairman of Apollinaris & Johannis, and many other companies, has left a fortune of 477,744*l.* gross.

GREEN.—The will of the late Mr. Alderman John Green, chemist and druggist, of Christchurch, Hants, who died on November 21, 1903, has been proved at the Principal Probate Registry by Mr. Frank Augustus Lane, grocer, and Miss Emma Day, spinster, both of Christchurch, the executors. The gross amount of the estate is valued at 3,020*l.* 13*s.*, including net personalty 983*l.* 11*s.* 1*d.*

MATHEWS.—The will of the late Mr. John Hitchcock Mathews, chemist and druggist, of Queen's Gardens, Bayswater, W., and of 108 High Street, Oxford, who died on December 2, 1903, at the Warneford Asylum, Oxford, has been proved at the Principal Probate Registry by his brother, Mr. Henry Mathews, of 68 Queen's Gardens, Bayswater, chemist, the sole executor. The gross amount of the estate is valued at 2,751*l.* 6*s.*, and the net personalty 2,707*l.* 13*s.* 3*d.*

OWEN.—The will of the late Mr. George Bargh Owen, chemist and druggist, of 51 Crescent Road, Sheffield, and formerly of the Broad Street Stores, and of 6 Stepney Street, Park, Sheffield, who died on March 14, has been proved by Mrs. Rachel Owen, his widow, at 1,494*l.* gross, the net personalty being 489*l.*

THOMPSON.—Mr. Isaac Cooke Thompson, F.L.S., chemist and druggist, formerly of the firm of Thompson & Capper, homœopathic chemists, of Liverpool, who died on November 6, 1903, left a gross estate amounting to 10,814*l.* 19*s.* 8*d.*, including net personalty 9,831*l.* 4*s.* 9*d.* His executors are his widow, Mrs. Susanna Dodgson Thompson, 53 Croxteth Road, Liverpool, and Mr. George Edward Thompson, 39 Rose Mount, Oxtou, Cheshire, photographer.

THOMPSON.—The will of the late Mr. William James Thompson, of Kippington Court, Sevenoaks, senior of the firm of Messrs. William James & Henry Thompson, of 38 Mincing Lane, tea, cinchona, and colonial brokers, and Chairman of the London Commercial Salerooms, has been proved at 327,679*l.* gross. The late Mr. Thompson, who was known as "The Father of Mincing Lane," bequeathed legacies to many persons in the employment of his firm, the companies with which he was connected, and his own servants, and the stationmasters and staff of Sevenoaks and Cannon Street Stations. From a legacy to his son, the Rev. Henry Percy Thompson, the testator suggested that certain sums might be paid to public uses.

WILLIAMSON.—The late Professor Alexander Williamson, F.R.S., Emeritus Professor of Chemistry at the University College of High Pitford, near Haslemere, who died on May 5, has left estate valued at 33,511*l.* 14*s.* 2*d.* gross, the net personalty amounting to 15,054*l.* 19*s.* 11*d.*

FIRE.—An annexe to the premises of Messrs. McKesson & Robbins, wholesale druggists, New York, was destroyed by fire recently. The main store was not touched, and business was not interfered with to any extent. Mr. John McKesson had just returned from the St. Louis Exhibition. During his absence from the city on a previous occasion a fire destroyed the Ann Street annexe, and Mr. McKesson's friends have been chaffing him over the coincidence.



Scientific Progress.

Cellotropin.—This body, which is recommended as a remedy in cases of tuberculosis and scrofula, is mono-benzoyl-arbutin, of the formula $C_6H_5(OC_6H_4O_2)(OC_6H_4CO)$. It is prepared by the interaction of arbutin and benzoyl chloride, and forms a tasteless and odourless powder, insoluble in most organic solvents, and only slightly soluble in water and alcohol. It melts at 184.5° . Under the influence of hydrolytic agents it decomposes, with the formation of benzoic acid, hydroquinone, and glucose.

Meat-extract.—Kutscher and Steudel ("Zeit. Phys. Chem.," 38, 101) have examined a large number of preparations of fresh muscular tissue, and have come to the conclusion that succinic acid does not exist in the fresh muscles, but is only formed by a putrefactive process when decomposition has set in. But they have at the same time found that all commercial samples of meat extract, of the very best origins, do in fact contain succinic acid, sometimes in quite appreciable quantities, so they consider that for the present the existence of this acid in meat extract must be left as an open question, and may have no significance whatever.

Otto of Rose.—Von Soden and Triff have published an interesting communication in the "Berichte" (1904, 1094) on otto of rose, in which they describe the isolation of three new compounds from that essential oil. These bodies are nerol, eugenol, and a sesquiterpene alcohol. Nerol is the alcohol which was isolated from oils of neroli and petit-grain by the same chemists, and is isomeric with geraniol. The sesquiterpene alcohol, of the formula $C_{15}H_{26}O$, is very like the alcohol farnesol, isolated from cascade-flowers, but has not so far been definitely identified with it. The sesquiterpene alcohol and eugenol are present to the extent of about 1 per cent. each.

Ricinine.—This body, which was first extracted from the castor-oil seeds by Tuson, has been reinvestigated by Maquenne and Philippe. The crude ricinine was purified by a series of recrystallisations, finally from chloroform-alcohol and water. It was found to have the formula $C_{18}H_{31}NO_2$. It decomposes without melting, at 320° . It is hydrolysed by alcoholic potash into methyl alcohol and ricinic acid. It is not very soluble in most neutral solvents. Under the influence of fuming hydrochloric acid it decomposes with the formation of ammonia, carbonic acid, and a compound of the formula $C_8H_9NO_2$. This last body is probably methyl-oxypropidone.

Origins of Vinegars.—Divai ("Ann. Chim. Analyt.," 1904, 180) gives the following details by which he claims to be able to decide the origin of several varieties of vinegar: Wine vinegar should yield 6 to 9 per cent. of acetic acid, and 1.7 to 2 per cent. of extract. If the vinegar be neutralised with soda, it should not reduce Fehling's solution; and if mixed with two volumes of alcohol, it should not deposit gum or dextrin. It contains cream of tartar. Glucose vinegar differs from this in reducing Fehling's solution when neutralised, and in depositing when treated with alcohol. It does not contain cream of tartar. Malt vinegar contains only up to 3 per cent. of acetic acid, but yields 4 to 5 per cent. of extract. It precipitates abundantly on mixing with alcohol. Cider and perry vinegar contain 3 to 4 per cent. of acetic acid, and 1.4 to 1.6 per cent. of extract. They yield yellow precipitates with acetate of lead.

Mastic.—An exhaustive research on the chemistry of mastic has just been published by Tschirch and Reutter ("Pharm. Central.," 1904, 363). The samples upon which they worked had a mean acid-value of 58.9 and a mean saponification-value of 81.8. By shaking with 1-per cent. solution of ammonia and separating the dissolved body by hydrochloric acid, 3.9 per cent. of a white, uncrystallisable acid was obtained. By precipitation with lead acetate and decomposition of the lead salt, the acid was obtained in the form of a white powder to which the name "alpha-mastinic acid" is assigned. It melts at 90° to 91° and is optically inactive. Its acid-number is 141, and its formula appears to be $C_{21}H_{32}O_4$. From the mother-liquors of the precipitation of the lead salt of this acid another acid was obtained which melts at 89° to 90° , and which has the same empirical formula as the alpha acid. It has been termed "beta-mastinic acid." By further extraction of the mastic with sodium-carbonate solution 38 per cent. of another acid mixture was obtained, from which were separated three acids—masticolic acid ($C_{21}H_{32}O_4$), alpha-masticonic acid ($C_{21}H_{32}O_4$), and beta-masticonic acid, isomeric with the last-named acid. Two per cent. of a yellow essential oil with a camphoraceous odour was isolated, and also two neutral resenes, named alpha- and beta-masticoresenes.

Rhubarb-valuation.—Tschirch ("Pharm. Post," 1904, 249) gives the following method for the determination of

the oxymethylantraquinone in rhubarb (due to Cristofolletti) and the percentage found in a number of different varieties:

0.5 gram of finely powdered rhubarb is heated with 50 c.c. of a 5 per cent. solution of sulphuric acid for fifteen minutes, and on cooling is transferred to a separator with 50 c.c. of ether. After well shaking the ether is separated, and the liquid exhausted with more ether until the separated ether shows no colour on the addition of a little potash solution. Four or five shakings with fresh ether are usually necessary. Another heating of the extracted solution is necessary, and a further extraction with ether. The whole of the ethereal liquids are mixed and extracted with potash solution, and made up to a known bulk. The colour is then compared with a standard solution of emodin in alkali.

The following determinations are given:

	Per Cent.		Per Cent.
Rhub. rb—Shensi	... 3.3	Rheum anglicum	... 2.5
" "	... 2.8	" "	... 1.8
" Shanghai	... 3.3	" officinale	... 2.0
" "	... 3.3	" galicum...	... 2.8
Rheum palmatum	... 2.8	" Collinianum	... 1.8
Rhubarb—Canton	... 2.4	" austriacum	... 1.6
" "	... 2.5	" "	... 1.6
" "	... 2.8	" Raponticum	... 1.2

Radium in Mineral Waters.—The "Chemical News" (89 2312) gives the Hon. R. J. Strutt's study on "the radio-activity of certain minerals and mineral waters," which was read before the Royal Society. The red deposit collected inside the King's Well at Bath was found to be markedly radio-active. Mr. Strutt tells in detail the steps he took to determine whether the water itself contained any radium in solution. There could be little doubt that there must be traces left in solution after the deposit had subsided out. But since the Bath water contains abundance of sulphates, and since radium sulphate is one of the most insoluble salts known, there could not be more than the merest traces present. The sulphate of barium is very much less soluble than that of strontium. And presumably the sulphate of radium is much less soluble still. About ten litres of the Bath water was evaporated to dryness. The resulting saline residue was sealed up in a hard glass tube, and left for about a fortnight to generate a stoek of emanation. On heating, a distinct emanation was obtained, giving several times the rate of leak that air did. A deposit similar to that from the Bath water, but black in colour, can be collected from the source of the hot springs of Buxton. It has been analysed by Dr. J. C. Thresh, and on being examined was found to contain radium also, the proportion present being not very different from what was found in the case of some of the Bath deposits. It is further calculated that the annual delivery of radium from Bath water amounts to about a third of a gram. The spring delivers 100 cubic feet of gas a day, and a thousandth part of this is helium, so that about 3 litres of helium is given off daily, or about 1,000 litres per annum. Neither Cheltenham saline water nor the deposit has as yet yielded this investigator any confirmation of the presence of radium.

Stamped=medicine Notes.

MORE OFFICIAL DECISIONS.

"Tonic Aperient" and "Children's Alterative Tonic" have been declared "not liable to duty." (152/56.)

A winter balm which "removes all roughness, redness, chaps, and soreness of the skin arising from hard or cold water, exposure to cold winds, frost, &c.," has been declared by the Board not to be liable. (152/56.)

DIGESTIVE AND TONIC MIXTURE.

This mixture, in combination with a solution of the best pepsin, possesses stimulating properties, and is a powerful aid to digestion.

Dose.—One tablespoonful to be taken in water two or three times a day.

This label has also been marked by the Stamp Department at Somerset House "Not liable to duty."

Practical Notes and Formulæ.

FLUID EXTRACT OF LIQUORICE.

WRITING in the "Journal de Pharmacie et de Chimie," 1904, 284, Professor Guigues, of Beyrout, contrasts the preparations made according to the formulæ given in the B.P. and the U.S.P., the former of which is an aqueous fluid extract preserved with spirit, and the latter an extract prepared with ammonia, water, and spirit. His conclusion is that the U.S.P. preparation is much the superior of the two. It is really agreeable in odour and taste, and it gives a clear solution with water; while the B.P. liquid extract is acrid in flavour and in spite of repeated filtrations and setting aside for more than a month gives a muddy solution with water. The greater richness of the British liquid extract in extractive and in glycyrrhizin is only apparent, for in taking the dried extract from the same quantities of liquorice employed it is found that the glycyrrhizin in the U.S.P. preparation is as 31.95 to 14.16 in the case of the B.P. liquid extract. He therefore concludes that the superiority of the former is due to the mode of preparation and to the use of alcohol and ammonia.

ROSSBACH'S EXPECTORANT-MIXTURE.

THE formula as published by Dr. Rossbach some twenty years ago in the "Zeitschrift für Therapie" is as follows:

Morphine hydrochloride	...	...	1 part
Apomorphine hydrochloride	...	1 to 2	"
Hydrochloric acid	...	20	"
Distilled water to make	...	2,500	"

Mix.

A tablespoonful every two or three hours.

FACE-CREAM WITHOUT GREASE.

Quince-seed	...	...	10 parts.
Boiling water	...	1,000	"
Borax	...	5	"
Boric acid	...	5	"
Glycerin	...	100	"
Alcohol (94-per-cent.)	...	125	"
Otto of rose	...	to perfume	

Macerate the quince-seed in half the quantity of boiling water, with frequent agitation, for 2½ hours, and strain. In the rest of the boiling water dissolve the borax and boric acid, and add the glycerin and the perfume, the latter dissolved in alcohol. Add the quince-seed solution little by little to the boric solution, agitating constantly, keeping up the shaking for five minutes after the last portion has been added.—*National Druggist*.

CONDITION-POWDERS.

Powdered gentian	...	2 oz.
Powdered saltpetre	...	½ oz.
Powdered sulphur	...	2 oz.
Powdered resin	...	1 oz.
Powdered fenugreek	...	1 oz.
Powdered ginger	...	2 oz.
Powdered Cayenne	...	1 oz.
Powdered black antimony	...	2 oz.
Powdered flax-seed	...	5 oz.
Powdered elm-bark	...	5 oz.
Powdered blood-root	...	1 oz.
Powdered copperas	...	5 oz.
Powdered sodium sulphate	...	4½ oz.

Triturate the ingredients to a fine powder and mix. Use a dessertspoonful twice a day in the feed.—*Phar. Era*.

GODFREY'S CORDIAL.

MR. H. C. BRADFORD, in the "Bulletin of Pharmacy," objects to the N.F. formula for this still much-used cordial because "it is crude and unscientific." He has devised the following, which corresponds in strength to that of the N.F. and gives a palatable preparation of uniform strength:

Oil of sassafras	...	1 c.c.
Tincture of opium	...	35 c.c.
Alcohol	...	50 c.c.
Simple syrup	...	325 c.c.
Water to make	...	1,000 c.c.

Dissolve the oil in the alcohol, and add the syrup, previously mixed with an equal volume of water. To this add the tincture and water to make 1,000 c.c. After standing for a day or two, filter.

Association Ballads.

THE PURPOSE.

*The men, their aims, their daily irk;
Their troubles, trials, thoughts, and views
On things politic, foes that lurk
In friendly guise, but treach'rous work—
These be the burden of our Muse.*

XXIV.—GLASGOW PHARMACEUTICAL.

In that city of St. Mungo
From Cowcaddens to Strathbungo
There are paradigmic pharmacists in business by the score;
Where cattle erstwhile tossed a hoof,
At Pollockshaws or Crossmyloof,
The votaries of Galen now display th' emblazoned door.
The ancient Celts with bow and bill
May once have roamed o'er Downanhill,
But now an able Councillor has made it his domain;
Their President as well is he,
A man of might and courtesy:
He rules the Federation and he sings a gay refrain.
A sway benignant Currie wields
From Ibrox e'en to Pollockshields
When gladiatorial Gilmour seeks a gathering of the clans,
And many come as can to see
The shattering of some phantasy
Evolved by insect-murderers who back Camlachie's plans.
Perchance some verbal lollipops
Are used to sweeten "doctors' shops,"
A subject that is searing Glasgow chemists to the core,
Or maybe, on the other hand,
Our Brodie, p'raps, or Sutherland
Will chip in with reflections on the "patent-cutting" sore.
They are eminently practical,
And seldom are didactical
(Although upon occasion not at one with Aberdeen);
But they know where they are aiming,
And they get without declaiming
Quite the right consideration from the Powers-That-Once-
Have-Been.
At times from Glesca's gloomy maw
They flee, and fragrant Broomielaw
Forsake for fair Cragneithan and the lovely Falls o' Clyde;
And there with colleagues from the East,
Unite in revel and in feast
And snatch the fleeting pleasure from the onward-flowing
tide.

At the Counter.

SMALL BOY (to benignant-looking chemist): "Please, mister, can you give me a Beechman's Miracle!!!"—*Tableau!*

"A BOTTLE of chocolate for the hair, please," was what a small boy asked for. It was the one-and-elevenpenny and gold-watch affair he wanted.

SCENE: Outside a Glasgow chemist's window. *Dramatis persone*: A group of ragged urchins examining the pictorial show-card of a well-known soap which represents Thetis, the mother of Achilles, dipping him head downwards into the river Styx.—Motherly-looking, old-fashioned girl, addressing the rest: "Did ye ever? What a shame to haud the wean naked down that way! She'll gie the wee lamb water-in-the-heid."

FROM A KENT CHEMIST, who has the audacity to close from 1 P.M. on Wednesdays for the rest of the day:

Conversation I.

Lady Customer: Don't you open on Wednesdays for evening trade?

Assistant: No, madam.

Customer: That is very strange. I thought you always opened on an evening.

Assistant: It may seem strange, madam, but we have got to quite enjoy having an afternoon and evening to ourselves. What is your pleasure?

Customer: Oh, 2d. worth of pills and 1d. worth of lavender-water.

Conversation II.

Customer: I call it owdacious that you young men refuse to serve a customer after closing on Wednesdays. They keep open all night at Glasgow.

Assistant: What did you want, madam?

Customer: Oh, my usual 1d. worth of pills.

Assistant: This is not Glasgow, madam, thank goodness!

Observations and Reflections.

By XRAYSER.

Elias Bremridge,

whose long and useful life ended last week, was something more than a devoted servant of the Pharmaceutical Society. He was an important link between the generation of Jacob Bell and that of Michael Carteighe, and it was characteristic of him that neither years nor the deafness which in the latter part of his life so largely cut him off from association with his old acquaintances ever slackened the keen interest with which he followed pharmaceutical history. I happen to know that THE CHEMIST AND DRUGGIST was an always welcome weekly visitor to him. I am not sure that he read it at all in his official days, for he was scrupulously orthodox at that time. But if his pharmaceutical faith relaxed a little in his retirement, his true loyalty to the Society and its chiefs never faded. Once

In Conversation with him

about old times I indiscreetly asked him whether all those famous founders of the Society were really as wise and worthy as the memoirs of them make them appear to us. I just drew a blank. That question was never answered. The old gentleman whose wits were as alert at ninety as most people's are at sixty, lost the thread of the discussion and wandered off into some other topic. As a secretary Elias Bremridge came as near perfection as it is possible to reach it in official harness. With a small staff and no end of detail work to carry out, he was interrupted perhaps twenty times a day, but he received all his interlocutors so cordially that they all went away convinced that they had given the Secretary a quarter of an hour's treat by their visits. All the official and unofficial negotiations connected with the Pharmacy Act of 1868 must have passed through his fingers; and it should be remembered that they passed Acts of Parliament in those days as well as drafted them. Their degenerate descendants cannot even get the principle of the old Act confirmed.

Called to the Bar

From the ranks of pharmacy is undoubtedly a long step upwards in the world's estimation to-day. Barristers are in Society; pharmacists are not. Barristers are recognised, I believe, in the Tables of Precedence formulated by the College of Heralds; pharmacists are not even "gentlemen" in the classification of Garter King-at-Arms. At the Universities the Faculty of Law ranks above that of Medicine. Something has gone wrong somewhere for this to be the case. The lineage of Medicine in all its branches reaches back to the earliest days of recorded history. The art of the apothecary was flourishing when Moses wrote. The evolution of the hired advocate, on the other hand, is comparatively modern, and it is a tenable theory that his prosperity coincides generally with periods of decadence. In an ideal world, at all events, there would be no place for him. Gibbon, writing of the superabundant provision of advocates in the later centuries of the Roman Empire, says: "Nor could they want an inexhaustible supply of business in a great empire, already corrupted by the multiplicity of laws, of arts, and of vices." The causes of the development of the profession were, in fact, identical with those to which the decline and fall may be traced. This is, however, without question the profession which our country

Delights to Honour.

Lawyers, barristers principally, fill more than a hundred of the coveted seats in the House of

Commons; their influence is only second to that of the land in the House of Lords; and having drafted and passed the statutes by which we are governed, to them exclusively is entrusted the interpretation and administration of those laws. It is not surprising that a profession with such prizes as that which the law has to offer should attract our cleverest men, or that it should tempt an exodus from our own pharmaceutical selves. In our complex civilisation counsel learned in the law are absolutely necessary. Bar practice is not entirely the rescue of rogues from the punishment they deserve; half of it, at least, consists of attempts to secure justice, and it is only fair to assume that this half is the more congenial to the self-respecting barrister. I hope the two chemists called last week will get as much practice as they can do justice to, and that it may all be such as they could have been proud of even if they had remained pharmacists. But I must for ever decline to admit that their new vocation is so useful to the community or so intrinsically honourable as the one they have left.

Five Thousand a Year

for the President of the Board of Trade instead of 2,000*l.* would be well worth spending if the higher salary would or could secure a man who might, could, or would increase British trade by a quarter of a quarter per cent. Is there any reason to suppose that such a man is available but will only give his services when the higher price is offered? The more probable effect of raising the pay of the President of the Board of Trade to the level of that of the Secretaries of State would be to make the position a useful one into which to shovel the derelicts of the party. An old earl who could no longer be trusted with home, foreign, or colonial affairs, but whose claims to high office could not be ignored, would find a dignified asylum in the Board of Trade, where it would be felt he could not do much harm. He would go over to the other side if a mere 2,000*l.* place were suggested for him. Under present arrangements the office has often been given to a new man who has established his right to Cabinet rank, but who cannot yet be trusted with one of the grand portfolios. He is probably one of the smart men of Parliament, a man with ideas, and usually one in the prime of life. Whether it is practicable for anyone, even though he be called Minister of Commerce, to give much more than routine service to national business may be doubted. When Colbert asked the merchants of Lyons what he could do for them, the reply they gave was, "Leave us alone."

The Cape Colony Chemists

may be assumed to know their own business better than we can know it here, but it does look as if they missed a chance of performing that lovely financial feat of taxing the foreigner when they successfully rescued Pink Pills and Seigel's Syrup from the grip of the Treasury. These were the types of the medicines which, according to the very complaisant Assistant-Treasurer, the Government particularly wanted to get at. Can you suggest any alternative plan of taxing them? he asked. This was where it may be suggested the Cape pharmacists missed their opportunity. I know what any deputation of British chemists and druggists would say if they had such a chance. "Tax away, sir, certainly; up to the value which the proprietors attribute to their precious products, if you like. But in the interests of the public, for the sake of the suffering poor, sir, let the similar medicines manufactured in this country go tax-free." The report of the interview suggests that such a request would have jumped with the inclinations of the Assistant-Treasurer, and perhaps with those of his chiefs. But apparently the risk of giving a little extra business to Natal outweighed other considerations.

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Editorial Comments.

The Sheffield Conference.

THE local arrangements for the British Pharmaceutical Conference meeting at Sheffield in August next are well in hand. The pink circular is to be submitted to a meeting of the Executive Committee in London on June 24 before being sent out to the members of the Conference. The arrangements are practically the same as announced in the provisional programme which was printed in the *C. & D.*, April 30, page 686. Some modification has been rendered necessary in the all-day excursion on August 11, but only to the extent of reversing part of the programme so as to allow of an earlier visit to Chatsworth House and for both luncheon and tea to be taken at Baslow. The afternoon teas on Tuesday and Wednesday (August 9 and 10) will be at the Montgomery Hall, by the side of the Town Hall, and close to the University College, where the Sessions are to be held. The works to be inspected include those of Walker & Hall, Mappin & Webb, and Cammell, Laird & Co. The first two are electro-plate factories, Cammell, Laird & Co.'s being armour-plate works. The luncheons on Tuesday and Wednesday will be served at the Royal Victoria Hotel, where excellent accommodation is available. It is there also that the dance and smoking-concert are to take place on the Tuesday. The ballroom is noted

for its capital floor, as has been well proved annually by the Sheffield Pharmaceutical and Chemical Society. In regard to the facilities offered by the railway companies for the journey to Sheffield it should be noted that on presentation of a membership card railway-tickets for the double journey can be had at the price of a single fare and a quarter. The favourite route for Londoners is likely to be by the Great Central Railway from the new station in Marylebone Road. This route is not at present too well known, as the G.C.R. is still somewhat of a novelty and a mystery to the majority of Londoners. The line passes through Aylesbury, Nottingham, and Leicester, and the chief trains include restaurant cars in their make-up, so that the tedium of a three to three-and-a-half hours' journey can be relieved by taking luncheon or tea on board. The 3.25 p.m. train on August 8 will probably convey the bulk of the London visitors to the Conference. This train is timed to arrive at Sheffield in three hours, thus allowing plenty of time to prepare for the reception at the Town Hall at 8.30 the same evening. There is talk of reserving a saloon carriage on this train, but it is too soon to definitely promise this. The Royal Victoria Hotel, the headquarters of the Conference, is at the Sheffield station of the G.C.R. The Midland Railway are offering similar facilities, and have a good service of trains from St. Pancras to Sheffield. The other hotels mentioned on the pink circular, and in the *C. & D.*, April 30, are conveniently situated in the centre of Sheffield and nearer to the University College than the Royal Victoria. Bookings for rooms at the headquarters can only be made through the Hon. Secretary of the Local Committee—Mr. Herbert Antcliffe, Union Offices, Westbar, Sheffield—as the committee have taken the whole of the available accommodation at the hotel. When the pink circular has been sent out the rooms will be allotted to meet as far as possible the wishes of applicants, but it must be borne in mind that the appropriated rooms are limited in number.

Cod-liver Oil.

ALTHOUGH we have now passed the principal season for the consumption of cod-liver oil, the article is still creating a certain amount of interest in wholesale circles owing to the steady depreciation in values of Norwegian oil. This fall in prices has taken most buyers by surprise, as many of them had bought heavily in April, when the price was from 250s. to 270s. per barrel, f.o.b. Bergen, whereas now there are anxious sellers at 155s. to 160s. There are, of course, a few buyers who like to make sure of purchasing March and April oil, as that refined early in the season and in the cold weather is more satisfactory than the Finmarken oil, but this is no compensation for a loss of, say, a five-pound note or more on each barrel. The weak condition of the market has been caused by the favourable returns regarding the Finmarken cod-fishings, where the catch of late has been exceptionally good, and quite contrary to expectations. A fortnight ago the yield at Finmarken was equal to 1,000 barrels of steam-refined oil, and the total quantity for the season is now about 17,000 hectolitres of oil. The fishing at Finmarken will in all probability continue until the end of this month, but the results from now onwards will only be small, and at the finish the total output for the whole of Norway will be about 18,000 hectolitres, or 13,500 barrels of non-freezing oil. It is said that some 7,000 barrels have already been exported from Norway, so there is every indication that a moderate supply of oil will be left over at the end of the season. It is therefore quite probable that during the next three months the market will show a

still easier tendency, as consumption will be at its lowest point. It must also be borne in mind that the Newfoundland oil is almost due, and that it will be a keen competitor for business on the European and American markets. Last year, owing to scarcity, the Newfoundland oil made serious inroads on the London market, and from what we hear the exporters will leave no stone unturned to retain their position.

In the Norwegian newspaper "Farmand" an interesting controversy has taken place regarding the statements of a Christiania house contained in a circular issued by them in January last, wherein they called attention to the fact that the exports of steam-refined cod-liver oil from Norway last year exceeded the quantity produced "by more than double." In other words, the official statistics state that 2,952 barrels of steam-refined cod-liver oil were produced and 6,845 barrels were exported. The circular adds:

How is this possible? The stock from 1902 was about exhausted, and the reason for the large export figures cannot, therefore, be explained by this source. We can only state that there have been produced considerable quantities of other kinds of fish-oil. . . . In the district of Søndre (Søndmøre) alone about 1,000 barrels of ling-oil were produced. Furthermore, large shipments of Newfoundland cod-liver oil have been imported.

The inference from this is that the 6,845 barrels included a considerable quantity of other fish-oils, and of this fact Newfoundland has not been slow to take advantage. The *St. John's* "Trade Review" reprints the circular with the following remarks:

For years past our very good friends in Norway, and their allied interests all over Europe and America, have been insisting on the purity of their cod-liver oil, and inferentially on the impurity of Newfoundland oil. So successful have they been in this course that until last season we had practically no standing at all in the refined cod-liver oil market. Now, however, we find by the admission of a Norwegian business man, that not only did Norway in her hour of scarcity palm off Newfoundland oil as her own, but also she shipped as the genuine thing a large quantity of very inferior oil.

To this article the Christiania house reply maintaining the correctness of their figures, which are based on the reports of the Fishery Board and of the "Farmand"; and as to the inferior liver oil sorts produced in 1903, the firm have issued circulars stating that ling-oil has been sold at 240kr. per barrel; further that Greenland shark-liver oil has been sold at even higher prices than ling-oil. They also draw attention to the official report issued by the U.S. Consul at Christiania (recently given in the *C. & D.*), which states that foreign, mostly Newfoundland, cod-liver oil was imported into Norway during the summer of 1903. Finally, they exhort dealers to keep up their reputation by fair dealing and the delivery of unadulterated oil. This explanation brought a vigorous and lengthy reply from Mr. R. Joys, of Bergen, who characterised the original circular as "truth with modifications." He controverts the figures in regard to the exports as they do not specify the quantities of each kind of oil exported—i.e., cod-liver, ling-liver, and coalfish-liver oils are all entered in one column as steam-refined oil. This fact has been ignored by the Christiania firm. "It has never been contested," says Mr. Joys, "that inferior liver oils were produced in 1903. Indeed such oils have been produced for many years . . . and there is certainly nothing unfair in the fact that ling-oil has been sold at 240kr." The mischief of it is, however, that last year's famine-prices tempted some manufacturers to palm off concoctions which passed muster for genuine steam-refined cod-liver oil. Mr. Joys also says that the oils imported from abroad were partly Newfoundland oil and partly oil produced by Norwegian

refiners on the coast of Iceland. In regard to the former he was assured that the oil was sold again as such, after refining, and he concludes with a few personal remarks which hardly bear repetition.

An interesting side-light on the conditions prevailing in the English and Scotch cod-liver oil trade is furnished by a North of England correspondent. "It has been remarked," he says, "that they have profited largely by the high prices lately prevailing: no doubt this is the case, but not to the extent it might be supposed." On the English coast the fishermen get the livers as a perquisite, and last year, owing to the great scarcity of cod-liver oil, they were able to dispose of them at a good price—so much so that owners of vessels have this year taken steps to have this source of profit transferred to themselves, and, as a matter of fact, there has since been very keen competition for the livers. In normal years 2s. per bucket would probably be paid for livers, but quite recently 7s. was the ruling price. This high figure is the result of keen rivalry between wholesale houses who entered the field last year, bought all livers they could, packed them in ice, and manufactured cod-liver oil on their own premises, to the great disgust of the regular makers, who have been prevented from reaping what might have been a record harvest.

The Brandy Question.

THE publications emanating from the Paris Municipal Laboratory, which have already been referred to in these columns, are now complete, and, as we stated in a previous article that we should do, we summarise the results as published in the "Journal de Pharmacie et de Chemie." These show it to be clear that a valuation of brandy must be made, not merely in reference to the quantity of a given set of bodies easily determinable, such as the esters, but also with due consideration of the real value or the toxic nature of each set of compounds, and until reliable physiological experiments have settled all doubtful points the brandy question must remain a somewhat difficult matter. Of a certain number of the so-called "impurities" in brandy the following quantities are quoted per kilogram of the body-weight of animals, as lethal doses comparing well between themselves:

Ethyl alcohol ... 8 grams	Ethyl aldehyde ... 1 gram
Propyl alcohol ... 39 grams	Ethyl acetate ... 4 grams
Isobutyl alcohol ... 2 grams	Enanthyl alcohol 8 grams
Amyl alcohol ... 17 gram	Caprylic alcohol ... 7 grams

Furfural appears to be generally admitted to be of a particularly objectionable nature. The analytical methods used by the Municipal Laboratory are as follows:

- (1) The alcoholic strength is determined by a specific gravity method.
- (2) The extractive is determined by drying 25 c.c. at 100° C. Of this the sugar is determined by Fehling's solution after inversion. The colouring-matter should consist entirely of tannin, and no caramel or coal-tar colours should be indicated.
- (3) The free acids are determined directly on 25 c.c. of the brandy with decinormal potash.
- (4) The aldehydes, ethers, and higher alcohols are determined on the distilled brandy, using 200 c.c. of brandy and 20 c.c. of water, and distilling 200 c.c. The distillate contains the volatile "impurities," and portions of it can be used for the various determinations. The aldehydes are determined by a colorimetric reaction, using a solution of fuchsine and sodium bisulphite acidified with sulphuric acid. Care must be taken to adjust the distillate to the same alcoholic strength as the standard solution (50 per cent.) of acetic aldehyde, as the results are all expressed in parts relative not to the original brandy, but to the absolute alcohol contained therein. The furfural is determined by the colour developed with aniline acetate, and the esters by saponification of 50 c.c. of the distillate with 10 c.c. of decinormal potash. The

higher alcohols are determined by fixing the aldehydes by heating for one hour with metaphenylenediamine hydrochloride. The alcohol is then distilled off and 10 c.c. is warmed with an equal volume of pure colourless sulphuric acid. The colour developed is compared with that developed by a standard solution of isobutyl alcohol, in terms of which the result is expressed.

About 350 c.c. of brandy is sufficient for the determination. The sum of the amounts of impurities, expressed in milligrams of the predominating body of each group, per 100 c.c. of absolute alcohol present is called the "coefficient of impurities." Passing on to the question of the brandy of commerce, the writers say a genuine brandy is rarely met with—that is, a brandy free from what we know as "silent" or "featureless" alcohol, either in its natural state or flavoured with artificial essences. The question of money-value and ester-content, as pointed out by Umney and Bennett, is not necessarily proportional at all. Indeed, when one considers that the chief factor dominating money-value is age, and depends on compound interest on the original money-value, it is hardly likely that any ratio should exist between value and esters. But the authorities of the Paris Municipal Laboratory have shown that with various brands of the same firm's output (apparently leaving out of question fancy values for old vintages) the money-value is in direct proportion to the ester-content, or that, in other words, the lower the price the more silent spirit is there present. They further state that fictitious brandies made up with aromatics and silent spirit cannot be confounded on analysis with genuine brandies. How a mixture of alcohol with natural esters, aldehydes, and higher alcohols is to be distinguished chemically from a similar preparation with the "impurities" artificially added we do not understand. The nose and palate must surely come into play here. Another very important point comes into consideration. "Marc brandies," which contain a very large amount of "impurities," are used and enjoyed by many consumers. Such, for example, are the marc brandies of Burgundy, Champagne, and Auvergne. These brandies often contain sufficient essential oil, &c., to become turbid on the addition of water. A fermentation of the solid marc, containing the skins and seeds of the grapes, on the addition of water is the usual method of preparing this type of brandy.

An exhaustive series of analyses closes the set of papers. Of these we can only give a brief summary. In seven samples of "industrial alcohol" (i.e., alcohol nearly equivalent to our "silent spirit") the coefficient of impurities varied from 8.4 to 40.9. Seven samples of genuine unsophisticated brandy gave the following results in milligrams per 100 c.c. of absolute alcohol contained in the sample:

Acidity ...	31 to 111	Higher alcohols ...	212 to 244
Aldehydes ...	10 to 84	Coefficient of im-	
Furfural ...	1 to 2.7	purities ...	349 to 568
Esters ...	112 to 240		

A series of artificial cognacs showed lower figures all through; but we see no reason why an artificial brandy cannot be produced with sufficient impurities to answer all the above figures with the greatest ease. A number of mixtures of pure brandy with industrial alcohol gave intermediate figures, whilst eight samples of marc brandy gave the following very high results:

Acidity ...	35 to 327	Higher alcohols ...	68 to 547
Aldehydes ...	45 to 374	Coefficient of im-	
Furfural ...	0.1 to 5.2	purities ...	264 to 1487
Esters ...	90 to 542		

The appearance of these papers at the present juncture is, we believe, a coincidence, but they should be of value to all who are concerned in the business.

Medical Dispensing.

Mr. Y. M. Jones-Humphreys, of Cemmaes, Montgomeryshire, sends to the "British Medical Journal" a belated contribution on the question which exercised medical journalists some months ago, "Should medical men be allowed to dispense their prescriptions or not?" Mr. Jones-Humphreys thinks medical men should dispense, because last week he was unable to get some nitrite-of-amyl capsules at the nearest town to where he lives. Moreover, "some years ago" the medical man prescribed nepenthe (Ferris), and a chemist told the patient that he did not keep the drug, and that there were several other preparations which acted much better. Mr. Jones-Humphreys' comment is: "Now, to me this sounds very much like substitution, and that the chemist, without seeing the patient or knowing anything of his complaint, judges himself to be a far more competent person to prescribe than the medical man in attendance." This sounds for all the world like the stuff we were treated to a year ago, and the writer appears perfectly oblivious of the fact that supply keeps pace with demand in dispensing as in other things.

The P.M.V. and D.S.A. Crusade.

The propaganda of the Patent-medicine Vendors' and Drug-stores' Association is still being rigorously pursued. A batch of papers, marked "Importance" in red ink, has been sent to us which illustrates the methods by means of which adherents to the cause are secured. For the purpose of obtaining "Inland Revenue or Pharmacy Act exemptions" a form has been sent out on which the claimant is invited to enter particulars of his apprenticeship, and of employment subsequent to apprenticeship or length of business career on own account. As an incentive to the unqualified vendor of proprietaries to seek the fold circulars printed in bold type and headed "Poisons Committee Inquiry" are apparently being circulated, setting forth "what the evidence has revealed *re* the patent-medicine monopoly." The analysis and summary of prosecutions by the Pharmaceutical Society during six years are effectively set forth in detail, and the blessed word "monopoly" is made the most of throughout.

The Ministry of Commerce and Industry.

An interesting debate took place in the House of Commons on Thursday, June 16, regarding the report of the Committee appointed to consider the re-organisation of the Board of Trade, Sir Albert Rolit leading off the discussion. There was a general feeling amongst members on both sides of the House that the Committee's report is inadequate, and that the Minister of Commerce and Industry should be a man with a personal experience of commerce. The opposite view was held by Mr. Ritchie, Mr. Bryce, and Mr. Gerald Balfour, past and present Presidents of the Board. Perhaps no one has ever so happily expressed the limitations of the Board as Mr. Bryce did in these words:—

When I went to the Board of Trade I was very uneasy because I was not a business man, and had not even been a director of a public company; but I had not been at the office many weeks when I discovered that the cases in which I felt the want of a commercial training were very rare.

This remarkable expression of opinion exactly hits the point, and although Mr. Bryce and others say that persons who complain do not know what they would like the Board of Trade to do, there can be no question of the fact that if the academic character of the Board of Trade were replaced by commercial experience there would be less difficulty in appreciating what commercial men want. In the course of the discussion Mr. Gerald Balfour stated that an Imperial abstract containing all information regarding

trade and navigation between different parts of the Empire is being prepared and will be issued shortly. He also informed the House that arrangements have been made with the Foreign Office whereby the Board of Trade may address to our consuls abroad questions in regard to commercial matters, and these consuls are to be authorised to reply direct to the Board, instead of through the Foreign Office as hitherto. At the same time, the Foreign Office will receive copies of replies addressed to the Board. No definite issue resulted from the debate, but opinion is so strong against the inadequacy of the Re-organisation Committee's report that the Government are not likely to give effect to it without a larger measure of reform.

Club-doctors' Fees.

Recently friction has arisen between Northumberland miners and their medical attendants regarding the doctors' fees. The fees have lately been raised, but as the miners' wages have since fallen 40 per cent. the miners call for a reduction in the medical fees. A conference has been held between representatives of both parties, at which the doctors said that for sixty years the fees for attending miners had been sixpence a fortnight. During these years miners' wages had largely increased, while the expense of obtaining medical qualification had doubled. Four years ago it was made illegal for medical men to employ unqualified assistants, and the attendance now given is consequently of more value; finally, the increased cost of drugs, instruments, dressings, &c., added materially to the expense of practice. To meet this the miners assert that many serious cases are now sent to hospitals, and that in most colliery districts qualified nurses, maintained by the workmen, greatly assist the medical practitioners. The medical representatives, after careful consideration, advise the Medical Association:

That in their opinion it is impossible to obtain and retain the services of qualified medical men of ability and good character for colliery districts at less than the fee of 9d. a fortnight, which was fixed upon as a minimum; that a reduction of the present medical fees would tend to lowering of the standard of medical work, and defeat the endeavour of our Association to increase the usefulness and the skill of our members.

On the other hand, the Miners' Association has been empowered to take steps to bring about a reduction of 50 per cent. in the fees now paid, and matters are apparently at a deadlock.

Temperance Wines.

The Magistrates of the Durham County Bench have recently fined a grocer 20*l.* and costs under the Sale of Food and Drugs Acts, for selling as raspberry-wine a syrup of glucose tinted with colouring-matter obtained from coal tar, and suitably flavoured. Mr. Scott Elder, the chief county inspector, who prosecuted, stated that recent analyses have proved that these cheap wines, such as raspberry, port, orange, sherry, &c., are one and the same syrup differently coloured. The defendant, who appears not to have been legally represented in court, pleaded guilty, excusing himself on the ground that he had obtained an implied warranty from the manufacturer. The case has raised the whole question as to the supply of non-alcoholic and temperance wines, in which a very large business is now done, chiefly by houses connected with the drug-trade. Although there is no question that the term "wine" means a liquor obtained by fermentation of the juice of the grape, while "British wine" means a fermented liquor prepared direct from fruit, we do not think the Sale of Food and Drugs Acts are infringed through the sale of wholesome non-alcoholic or temperance beverages to which such names as "Ginger non-alcoholic wine" are applied. During the past twenty years the demand

for these products has increased greatly; they are liked by the public because they are free from alcohol, and nobody expects to get the stimulating effects of alcohol by drinking them. That, indeed, is what the consumers desire to avoid. Consequently, their sale is not to the prejudice of the public, and, providing it can be shown that they contain nothing injurious to health, any prosecution under the Sale of Food and Drugs Act, 1875, Section 6, ought to fail. It is to be hoped that if any other case comes into court an effective defence will be made on behalf of the trade at large.

Ancient Japanese Medicine.

For evidence of the proficiency of the Japanese surgeons of to-day one has only to consult the "Surgical and Medical History of the Japan-China War of 1894-5," translated into English by a Japanese naval officer who is a F.R.C.S. The 550 pages of this useful volume, copiously illustrated with diagrams and charts, form a striking object-lesson in the completeness with which "Dai Nippon" has assimilated Western ideas. But a sentimental sigh may be permitted for the days gone by. The old, somehow, always happens to be more picturesque than the new—the stage-coach than the railway, the doublet than the frock-coat. And so the moxa treatment and the acupuncture of old-time Japanese practitioners attract us by their spectacular interest. Moxa is a soft, downy fibre obtained from the leaves of certain species of *Artemisia*. It was rolled into cones, about an inch in height, which were laid on the parts of the body selected, and allowed to burn slowly, like a fumigating-pastille. The treatment was used for almost every complaint; and the backs of the Japanese, bared when working, presented a fine display of scars. Kaempfer, a Dutch physician who was in Japan from 1690 to 1692, tells us that the working people of his day bore the appearance of having been soundly beaten. Acupuncture was used chiefly in colic, a complaint endemic in Japan. With a fine needle of gold or silver, the surgeon made nine punctures in the abdomen in the region of the liver, first knocking in the instrument with a tiny hammer, next turning it with the fingers, then withdrawing it and squeezing the orifice. The holes were arranged in three rows at even distances. Relief is said to have been, usually, instantaneous. Japanese chronology, prior to about A.D. 700, is hardly to be trusted; but in very remote times, certainly before the Christian era, there was an official list of some thirty-seven remedies that compare very favourably with those in use in Greece or Egypt. In the seventh century Chinese medical practice was introduced: a lady of rank took over a Chinese medical encyclopædia in 300 volumes—which were not advertised on the monthly instalment system. But about 800 A.D. the reigning Emperor commanded a return to pure Japanese medicine. Thenceforward every practitioner was expected to feel his own pulse at 4 A.M., "that he might discern the spirit of the day," and was severely punished for lapses from his duty. For a mistake in writing a prescription the penalty was three years' imprisonment and a fine of eighty pounds of copper coins; for impurity in ingredients, sixty lashes and eight pounds of copper coins.

A Napoleonic Cutter.

A writer in a recent issue of "Printers' Ink" devotes 3½ pages to a eulogy of the "champion cutter of California"—Mr. R. E. Miller, of the Owl Drug Company. The company started in business in 1892, with a capital of less than \$20,000, and is now (according to the "P. I." chronicle) doing over a million dollars a year. A combination of San Franciscan druggists for the purpose of raising prices by buying co-operatively first put the "Owl" on its mettle. This was in the beginning of last

year, and since then a war has been going on between the "Owl" and its competitors, which has been profitable at least to newspaper-proprietors in the vicinity. The combination was held up to the public (in page advertisements in the San Francisco papers) as a drug Trust "to pinch the sick and the poor." A drug-store opposite the "Owl" began to cut the "Owl's" prices for proprietaries. The prices went lower and lower until the "Owl" clinched the matter by giving away one of the proprietaries free with a dollar's worth of other goods. For weeks afterwards all the small shopkeepers were selling this particular proprietary with the "Owl's" name and selling-price stamped all over the wrapper—an excellent advertisement. Then the local druggists formed a branch of the National Association of Retail Druggists, and one day a walking delegate of the Drug Clerks' Union walked into the "Owl" drug-store and called out all the Union assistants. This crippled the store for a time, but non-union men were soon obtained, and in spite of Union placards at the door telling the public that "scab drugs and scab labour are bad for sick people," the Napoleon of Cutters was undismayed. He "roasted" the combine and the Union in whole pages in all the San Francisco papers, and cut the prices of his proprietaries. Then the wholesale druggists began boycotting the "Owl" and cut off all the supplies, but the "Owl" management anticipated the move by "laying in over \$200,000 worth of goods." Next the Miles plan came along to worry this unkillable "Owl." The Miles agent went to San Francisco and made large contracts with all the papers but one, stipulating that the newspapers were not to accept any advertisement that included Miles's goods at a cut price. The "Owl" refused to advertise in any paper taking Miles's advertisements, but apparently weakened on that point eventually. The latest phase of the question is that recently the Union carpenters who had taken up all the "Owl" drug-store flooring preparatory to putting in a new front, struck work, and the shop was not finished when we wrote this paragraph. The building-trades say the "Owl" will never finish the work until the store is Unionised; but the "Printers' Ink" writer has great faith in the indomitable will of the manager of the "Owl."

East Indian News.

CARBOLIC IN CEYLON.—Mr. George Muller, of Slave Island, poisoned himself last month by drinking a quantity of carbolic acid. The deceased had complained of the little work that fell to his lot at the workshop, and he was generally of a choleric temperament.

SECUNDERABAD SODA.—Mr. Thomas Robb, formerly manager with Messrs. C. F. Pearson & Co., chemists, Secunderabad, has established an aerated-water manufactory in Secunderabad. The new factory is in a central position opposite the Maidan, and has been fitted with apparatus and filters of the latest and most approved scientific designs.

MODERN POETRY.—According to a "Daily Chronicle" humorist, the highest forms of poetry are found in science and sanitation. The statement has moved one of its contributors to break out into song, thus:

Or what availed Sir Walter Scott
The life-long strain of debt's compulsion
That made him scribble such a lot
Of rubbish? O, with what revulsion
He must regret that he was not
The author of "Emulsion."

THE IMPORTS OF DRUGS into the Congo State during 1903 amounted in value to 42,450f., of which Belgium supplied 32,360f., Germany 2,169f., and England 1,409f. Pharmaceutical products were also imported to the value of 224,577f., of which Belgium supplied 192,383f., Germany 233f., and England 28,671f.

Legal Reports.

Supreme Court of Judicature.

A SACCHARIN APPEAL.

LORDS JUSTICES VAUGHAN WILLIAMS, ROMER, AND COZENS-HARDY on Thursday, June 16, heard the appeal of the defendants in the action Saccharin Corporation (Limited) v. D. T. J. Lyle & Son (Limited), against an order of Mr. Justice Buckley adding Mr. D. T. J. Lyle as defendant. The plaintiffs had alleged purchases by the defendant company of two parcels of saccharin in the latter part of the year 1901. After the pleadings had been closed the plaintiffs obtained an order for discovery, and then applied for and obtained the order appealed against, producing an affidavit which stated that the defendants, manufacturers of mineral waters at Maidstone, were only registered in March, 1902, and were not in existence at the time of the purchases. Mr. Josephs, for the appellants, contended that the proper course was to discontinue the action as against the company. The plaintiffs alleged that Mr. Lyle, who had sold his business to the company, and held a very large proportion of the shares, purchased the saccharin which was received or used by the company. Counsel contended that as the action against the company was bound to fail, the proper course was to discontinue the action and take separate proceedings against Mr. Lyle.

Lord Justice Vaughan Williams said he did not see the necessity of proving the purchases against Mr. Lyle if the company had acquired the goods.

Mr. Walter, for the respondents, said the case would be confined to the goods purchased by Mr. Lyle and sold to the company, though he reserved the right to proceed against Mr. Lyle.

On that it was agreed that there should be no order except that the costs were the defendants' in any event.

High Court of Justice.

GAMING CONTRACTS.

In the King's Bench Division on June 15, before Mr. Justice Bigham, an action was brought by Mr. E. Bucknall, trading as E. Bucknall & Co., against Messrs. Hahn, Vivers & Co., gum-merchants, of 9 Mincing Lane, to recover 206*l.* 4*s.* 5*d.* for payments made on the defendants' behalf and at their request, and for commission and interest. The plaintiff is a produce-broker, and his case was that, in accordance with instructions received from the defendants, he bought for the defendants' account certain quantities of cotton for future delivery.

The substantial defence was that the contracts between the plaintiff and the defendants in reference to the sale and purchase of cotton were gaming and wagering contracts.

Mr. Justice Bigham, in giving judgment, said that the defendants had not satisfied him that the contracts were gaming and wagering contracts. There was no reason to suppose that the plaintiff would not be prepared to deliver the cotton. It did not matter what the defendants intended. Unless the parties considered the contracts as mere bets they were good. There must be judgment for the plaintiff.

Pharmacy Act 1868.

QUITE A NEW COURSE.

At the Bloomsbury County Court, on Wednesday, June 22, before Judge Bacon, the Council of the Pharmaceutical Society, 17 Bloomsbury Square, W.C., prosecuted a number of unqualified chemists and assistants for penalties incurred by selling poisons contrary to the provisions of the Pharmacy Act, 1868 (31 and 32 Vict., cap. 121). Mr. Flux (of Flux, Thompson & Quarrell) appeared for the Society.

In the first case Mr. W. Webb, otherwise Betts, of 35 Hampstead Road, was summoned for two offences, the sales of poison having taken place on April 25 and 29 respectively, for each of which he had rendered himself liable to a fine of 5*l.* Mr. Flux observed it was a mere matter of fact.

Judge Bacon: Yes—most cases are; and also whether the Act of Parliament applies to the facts. (Laughter.)

Mr. Flux: As defendant is not here, your Honour, I must prove it in his absence.

Mr. Steer said that on April 25 he attended the shop, 35 Hampstead Road, and saw the defendant. He made a purchase of camphorated oil and white precipitate powder. He produced the articles in court.

Judge Bacon: How many?

Mr. Flux: The sale I rely upon is of ammoniated mercury.

Judge Bacon: You claim penalties for the sale of two particular articles. Which are the two?

Mr. Flux: There was a subsequent purchase, your Honour. Only one was a poison on the first date.

Judge Bacon: There is no poison, then, in camphorated oil?

Mr. Steer: I don't think so, sir.

Witness explained that he handed his purchases over to the Society. On a subsequent day he purchased two more articles, laudanum and eucalyptus oil.

Judge Bacon: Oh, I see. You adopt the system of going to buy some innocent drug in the first place, and then you ask for one of a dangerous character? (Laughter.)

Mr. Steer: I have always done it since I have been on the job. (Laughter.)

Judge Bacon: Oh, I dare say you are quite right, Mr. Steer; you do very good service to the State; but the course you adopt is quite new to me.

Mr. Flux: I have an admission from the defendant, your Honour, that the articles do contain poison. I have therefore been able to save the expenses of analysis.

Judge Bacon: Very well. You ask me to fine and I suppose I must. Let him be fined 10*l.*

KAY'S LINSEED AND LAUDANUM.

In the second case Mr. E. H. Eggar, otherwise Davies, 70 Tottenham Court Road, W., was also summoned for two offences. On April 25 he sold to Mr. Steer Kay's compound essence of linseed, and eucalyptus oil; while on the 29th of the same month he sold laudanum and soap-liniment together with castor oil.

Mr. Flux: In this case also, sir, the defendant has signed an admission of the sale of poisons.

Judge Bacon: On this occasion the innocent party was castor oil? (Laughter.)

Mr. Steer: That is so, your Honour.

Judge Bacon: This man must also be fined 10*l.*

A COLONIAL CHEMIST.

In the third case Mr. W. Brown, of 146 Edgware Road, W., was summoned for one offence on April 27. Mr. Flux said in this case also the defendant admitted the sale, but alleged that he was a chemist in one of the British Colonies.

Judge Bacon: Is the paregoric elixir here referred to a patent medicine or not?

Mr. Flux: No, sir.

Defendant: I claim that I ought not to be fined because I am a registered chemist by examination in Australia.

Judge Bacon: But does not the Act say you must be registered in England?

Mr. Flux: I have no knowledge of the Australian system.

Judge Bacon: I am bound by the English Act.

Mr. Flux said the register was kept in accordance with the Act, and the last section of the Act provided that the production of the register—which was in the Judge's hands—should be evidence, and that if a name was not found in it, he submitted that was sufficient for his case.

His Honour asked to see Mr. Brown's certificate or diploma, which was handed to him.

Mr. Flux pointed out that even chemists on the Irish register are unqualified in this country.

Defendant: Your Honour, it is only a question of time when reciprocal relations will be established—

Judge Bacon: Yes, but there must also be an Act of Parliament. I cannot listen to what you say will come some day. I am afraid I must fine you, Mr. Brown. How can I escape from doing so? Does the Act leave me any loophole, so that I may inflict a smaller fine?

Mr. Flux: I am afraid it does not, your Honour.

Judge Bacon: Very well. I must inflict the penalty of 5*l.*

Two assistants, named Reynolds and O'Donoghue, who admitted the claim before the Registrar of the Court, were ordered to pay the fine at 5*s.* a month.

Pharmacy Act (Ireland).

COMPOUNDING MEDICAL PRESCRIPTIONS.

In the Belfast Summons Court on Thursday, June 16, before Mr. Garrett Nagle, R.M., and another magistrate, Samuel Edgar Kee, 85 Falls Road, Belfast, was summoned for compounding medical prescriptions, he not being a pharmaceutical chemist. Mr. Joseph Donnelly, solicitor, Belfast, prosecuted on behalf of the Pharmaceutical Society, and Mr. A. J. Lewis appeared for the defendant. Mr. McGlennan, inspector for the Pharmaceutical Society, deposed that he visited the defendant's shop and gave defendant a medical prescription which he had obtained from the Royal Victoria Hospital as a patient. Defendant dispensed the prescription. This evidence was not denied, and defendant was fined 5*l.* and 12*s.* 6*d.* costs. The Magistrates ordered that one-third of the penalty should go to the inspector and two-thirds to the Society.

A second case was then called, the defendant being Richard Hobson, 6 Marlborough Road Terrace, Lisburn Road, Belfast. In this case Mr. McGlennan deposed that on March 29 he took a medical prescription to the defendant's premises to be compounded. Mr. Hobson told him that it would be ready in twenty minutes, and after that time he called again and obtained the medicine. Mr. Lewis, on behalf of the defendant, pleaded guilty to a technical offence. He said that Mr. Hobson is a young man who hopes to qualify as a pharmaceutical chemist in October. As a rule he did not compound prescriptions, having entered into an agreement in writing with a qualified person to attend to that part of the business. A fine of 5*l.* and costs was also imposed in this case.

SHEEP-DIP PROSECUTIONS.

At Coolaney (co. Sligo) Petty Sessions on Wednesday, June 15, before Major O'Hara (Chairman) and other magistrates, James Henry, Knockaderry, was charged with keeping open shop for retailing and dispensing poisons contrary to the Poisons Act and the Pharmacy Act (Ireland), 1875, he not being a legally qualified person. He was further charged with selling arsenic in the form of "Biggs's sheep-dipping composition."

Sergeant Barrett, who prosecuted on behalf of the Pharmaceutical Society, explained the law to the Magistrates, and deposed that on March 26 he went to the defendant's shop and found in it, exposed for sale, MacDougall's and another brand of sheep-dip. He purchased some, and sent samples to Professor Tichborne, Dublin, for analysis, and was prepared to put in the professor's certificate.

Mr. FitzGerald, for the defendant, asked under what section of the Act the certificate could be evidence in the absence of the analyst.

Sergeant Barrett replied that if the analyst's attendance was insisted upon he would apply for an adjournment.

Mr. FitzGerald thereupon said that the inspector had muddled up the Sale of Food and Drugs Acts with the Pharmacy Act, and he considered it a hard proceeding. It was his intention to take advantage of every point of law to get his client off. Every shopkeeper in the district sold sheep-dip, otherwise poor people would have to go to Sligo for it. He further pointed out that his client had got no notice forbidding him to sell the sheep-dip.

Sergeant Barrett said the Pharmaceutical Society had told him to press for a conviction if the defendant insisted upon the personal attendance of the analyst.

Mr. FitzGerald objected to the sergeant threatening him. Defendant had been selling this dip for ten years, and never got any notice that it was an offence at all. He asked that the case should be dismissed on its merits, as the Magistrates had power to do.

The Chairman said the Magistrates had the discretion of adjourning or dismissing the case, and they agreed to dismiss it.

Mr. FitzGerald applied for a guinea costs, and the Bench allowed him 10*s.* He insisted that he was entitled to 20*s.*, but the Magistrates replied that they gave 10*s.* only because the case was dismissed on a technical point.

Two summonses for like offences against Marshall Coleman, Coolaney, in respect of the sale of Quibell's powder sheep-dip were also down for hearing, but Mr. FitzGerald insisted upon the analyst's personal attendance, and the Bench dismissed the summonses, with 10*s.* costs.

Sale of Food and Drugs Acts.

BORAX.

At Colne on June 13, Albert E. Beazley was fined 2*l.* and 7*s.* costs for selling borax containing 23 per cent. of bi-carbonate of soda.

WHAT IS BRANDY?

At Hamilton on June 17, Alexander Fraser, wine and spirit merchant, Cleland, was fined 10*l.*, or two months' imprisonment, for selling brandy which was composed to the extent of 63 per cent. of spirit not derived from the grape. Some time ago accused pleaded not guilty, pending the result of a recent English prosecution. Sheriff Thomson said it must be clearly understood that such liquor must not be sold as brandy, and that in any future case he must seriously consider whether the full penalty would be imposed.

CHLORODYNE LOZENGES.

At the Swindon Police Court on Thursday, June 16, the Magistrates gave their decision on the cases of Brash Godwin, confectioner, Cricklade Street, Swindon, and of Alfred J. Manners, confectioner, 185 Victoria Road, Swindon, for selling chlorodyne lozenges which were not of the nature, substance, and quality demanded (see *C. & D.*, May 14, page 768). The second case had been left unfinished, and was first taken.

Mr. Bevir, addressing the Bench on behalf of the County Council, said one of the questions raised was whether the defendant had a case to answer. It was for the Magistrates to say now whether the case should be resumed.

The Chairman said the Bench were of opinion that there was a *prima-facie* case, but not for the imposition of a fine: the payment of costs would suffice.

In the case of Godwin, Mr. Bevir pointed out that there was no substantial difference between it and that of Manners. Godwin was supplied with the chlorodyne lozenges by Manners. It was agreed to withdraw the summons against Godwin.

TARTARIC ACID.

At Swindon Police Court on Thursday, June 16, Clarke & Reardon, grocers, Victoria Road, Swindon, were summoned for selling tartaric acid which the County Analyst certified to contain $\frac{1}{10}$ gr. of arsenic to the pound. On May 5 the case was before the Bench, and the reserve sample was sent to the Government laboratories. Mr. Bevir, for the prosecution, now stated that the Government analysts found $\frac{1}{11}$ gr. of arsenic per lb.

Inspector Sam. Smith, cross-examined by Mr. Withy, said he considered it a serious matter if $\frac{1}{10}$ gr. of arsenic was found in 7,000 gr.

Mr. Withy: Is it true that since the arsenic-in-beer scare chemists and inspectors have been on the look-out for arsenic?

Witness: Well, yes.

Mr. Withy, continuing, said that, presuming they took 10 lbs. of tartaric acid, 10 lbs. of carbonate of soda, and 120 lbs. of sugar, and this in the bulk contained $\frac{1}{2}$ gr. of arsenic, would that be serious?

Witness said it would be, but he did not know any case of injury to health by the presence of arsenic in tartaric acid.

Dr. B. Dyer, county analyst, spoke as to his analysis.

Mr. Withy, in addressing the Bench, pointed out that his clients sold the tartaric acid as they purchased it. The acid was manufactured in Austria. His clients communicated with the manufacturers, and the reply came, "There is no arsenic in the tartaric acid sold by us." In a letter from the manufacturers of tartaric acid at Vienna occurred the statement "The English are finding arsenic in everything." He (Mr. Withy) wished he could have brought the manufacturers before their Worshipships, but the King's writ did not run to Vienna. Mr. Withy went on to say that it is publicly known that where the County Council had found but $\frac{1}{10}$ gr. of arsenic there would be no proceedings. "If," said Mr. Withy, "we read the 'Lancet' every week and follow the advice it gives, we should never go anywhere or do anything."

The Chairman: That is quite true.

After retiring, the Bench found that it was a case in which they were bound to convict, but imposed the small penalty of 10*s.* and costs.

GINGER-WINE.

At Dungannon Quarter Sessions on June 21, Jas. Corrigan appealed against a decision of the Justices fining him for having sold ginger-wine adulterated with salicylic acid. After hearing the evidence the Chairman (Sir Francis Brady, K.C.) said the majority of the Bench were of opinion that there was no foundation whatever for the prosecution. Some preservative, either alcohol or this acid, is necessary for the wine, and if the use of the salicylic acid is prevented the only alternative for the manufacturers is to force alcohol on the people. The appeal was allowed, the conviction being reversed, with costs.

Merchandise-marks Acts.

FALSE DESCRIPTION OF PEPPER.

At the Liverpool Stipendiary Magistrate's Court on June 16, Charles Johnson, formerly trading under the name of "Charles Johnson & Co., chemical-manufacturers and spice-grinders," was charged with having given a false trade-description with a keg of pepper. The prosecution was undertaken by the Lancashire County Council, in whose jurisdiction, in November, 1903, a quantity of pepper was purchased for analysis and found to contain not less than 8 per cent. of nut-meal or ground olive-stones. The pepper had been supplied by the defendant, who gave a written guarantee of its genuineness. It came to the knowledge of the prosecution that the defendant had been buying nut-meal, and search-warrants were obtained and put into execution, with the result that a quantity of the adulterant was found on the premises, and also a large amount of adulterated pepper, which contained in some instances as much as 70 per cent. of ground olive-stones and French chalk. If the whole of the stuff purporting to be pepper found on the premises had been genuine, it would have represented a value of 3,000/. Mr. Rigby Swift, barrister, defended, and urged that there had been no intention to defraud, the nut-meal having been procured for the purpose of lightening the colour of certain black pepper which was being sent abroad. Some, however, was, without the defendant's knowledge, put into pepper intended for home consumption. Prosecutions followed, and the defendant paid all the fines; but his business, which formerly brought him in 1,000/. a year, had been absolutely ruined. The defendant was sent to gaol for three months in the second division.

A charge of forgery against Johnson was withdrawn, and, thereafter, an application was made to the Magistrate that certain property, including pea-meal, found on Johnson's premises should be confiscated. It was stated that the Liverpool Chemical Company had purchased Johnson's chemical-business, but had nothing to do with the case. The Magistrate ordered that the goods in Mr. Wilson's possession should be destroyed, but as it could not be proved that the goods on Johnson's premises had anything to do with the offence in 1902 they could not, under the Act, be seized.

County Court Cases.

A CREAM-OF-TARTAR CLAIM.

At Bow County Court on Wednesday, Messrs. Picken Brothers (Limited), chemists and grocers, having shops in various London suburbs, brought an action to recover 50/. damages for breach of warranty from Messrs. W. & C. Pantin, drysalers and wholesale provision-merchants, 147 Upper Thames Street, E.C. Mr. Davenport appeared for the plaintiffs, and Mr. Neil Pearson for the defendants.

Mr. Davenport said the action was brought to recover damages for a breach of warranty in connection with a quantity of cream of tartar which the defendants sold to plaintiffs last year with a warranty. Some weeks after this substance was supplied a sample was taken by the inspector under the Sale of Food and Drugs Acts. It was found to be adulterated with lead, and the result was that Messrs. Picken Brothers were summoned at Stratford Police Court and fined 10/. and 7/. costs. That amount was now claimed, together with the costs incurred in the

case, including 15/. 15s. paid to counsel. The balance of the 50/. was made up in consequence of the loss which Messrs. Picken Brothers had incurred owing to the publicity which was given to the case. He would be able to call witnesses to prove beyond reasonable doubt that the 2-oz. packet of cream of tartar which was sold to the food inspector was made up out of the last parcel supplied to the plaintiffs by Messrs. Pantin.

A number of witnesses were then called to prove that the cream of tartar in question came from the packet supplied by the defendants. Miss Annie Score, an assistant in the Leytonstone branch, where the substance was bought, stated definitely that she had seen the drawer filled by the manager, and had made up the package which was sold to the inspector. When the substance was analysed by Dr. Bernard Dyer, public analyst to the County of Essex, the cream of tartar was found to contain nearly 5 gr. of lead to the pound. When the summons was issued Mr. Picken submitted a sample of the remainder to an independent analyst, who found that it contained 4.78 gr. of lead to the pound. Mr. Alexander Picken stated that directly the case had been reported in the newspapers the takings at his Leytonstone shop went down considerably, although there had previously been an increase for seven years.

The case for the defendants was that the sample taken by the food inspector could not possibly have come out of the parcel supplied by them to the plaintiffs. They called witnesses to prove that the cream of tartar supplied to Messrs. Picken Brothers was part of a cask purchased from a continental firm. When the cask was opened a sample was taken, and after Messrs. Picken Brothers had informed them of the summons this sample was submitted to analysis. It was then found to contain 98.09 per cent. of bitartrate of potash and no lead.

On this evidence Mr. Pearson submitted that the cream of tartar which had been taken from the plaintiffs by the inspector could not possibly have come from the defendant firm. Messrs. Pantin had taken every reasonable and possible care, and it had been proved that this particular cask of cream of tartar was an uncommonly good specimen.

Judgment was reserved.

BUYING A BUSINESS.

At the Shoreditch County Court on June 21, before Judge Smyly, K.C., Alfred Higgs, chemist's manager, sought to recover a deposit of 30/. paid to Thomas Shorland, trading as the Seven Sisters Drug-stores, Seven Sisters Road, Holloway, in connection with the sale of the defendant's business. Plaintiff said he had been for years employed as a shop-manager for a large firm in the Midlands, but he was not a fully qualified chemist. As he hoped shortly to succeed in his final examination, however, he looked round with a view to the purchase of a business. In response to an advertisement in a daily paper, he called and examined defendant's business. Defendant said the business had been established five years, and owing to his representations he agreed to purchase for 600/., which included what the defendant represented to be 150/. in stock. Witness paid the defendant a deposit of 5 per cent., and it was this sum that he now sought to recover. On making fuller investigation he found that a fully qualified gentleman, employed by a wholesale house in Aldersgate Street, had been in the habit of attending occasionally in the evening "if telephoned to during the day." He further found that the business had only been opened by the defendant four months before. Plaintiff called on the defendant and demanded the return of his money, but the defendant put him off, and had since disposed of the stock by auction, realising only 45/.

Defendant denied misrepresentation, alleging that he said the business had been established five months, not five years. Goods sold at auction never realised proper prices; if they had, the sum realised would have been over 100/. The shop was now closed, the landlord having sold him up for rent owing.

Eventually his Honour said that he must hold that the plaintiff was entitled to the return of his money, as the defendant had prevented completion of the purchase, and had clearly asked 600/. for what was not worth half that figure. Judgment would be for the plaintiff, with costs.

CHEMISTS' ALMANACS.

Two cases of considerable interest to chemists were heard at Birmingham County Court on June 21, by Judge White-horne. The plaintiffs in both were Hudson & Son, a Birmingham firm of printers, who annually publish an almanac for chemists. The defendant in the first action was Robert Sidney Smith, pharmaceutical chemist, Hastings, and the ground of the claim was breach of contract. Mr. Smith's case was conducted by Mr. Adcock, solicitor. In July, 1902, plaintiffs' traveller called at Mr. Smith's shop and produced several samples of an almanac and pressed for an order. At first Mr. Smith declined, because, as he said, the cover of the almanac on which his own name was to appear looked "shoddy" and not in keeping with the class of trade he was doing. Later in the day the traveller returned and produced a cover of a much superior paper. He said nothing about any additional charge being made for this cover, and Mr. Smith gave an order for 2,000 copies of the almanac, to be reduced to 1,000 if he was unable to get a sufficient number of advertisements—a condition of which he subsequently found it necessary to take advantage. Later in the year the plaintiffs sent him a proof, but told him that if he insisted on having the better cover he would have to pay two guineas additional for the thousand copies. Mr. Smith declined to do so. A long correspondence ensued, and some time before Christmas Mr. Smith wrote the plaintiffs that it was no use their sending the books with the cheap thin cover, as he would not accept delivery. Notwithstanding this, the plaintiffs completed the books with the thin cover and sent them to Mr. Smith, not at Christmas, but on February 12, 1903, and that gentleman promptly returned them, on the ground that he had not got what he contracted for. The plaintiffs, on the other hand, contended that the defendant had broken his contract by not accepting delivery, and claimed 9*l.* 19*s.* 2*d.* damages. The Judge, however, held that the defendant had made out his case, and gave judgment accordingly.

The defendant in the second case was Henry William Clear, chemist, Belgrave Gate, Leicester, but the circumstances were not analogous. Mr. Clear signed an order for 1,000 almanacs, and when sending on the advertisements to the plaintiffs enclosed about fourteen pages advertising his own preparations. The plaintiffs pointed out that they could not include this matter unless Mr. Clear paid for it, as stipulated in the circular. Mr. Clear declined, because, he said, the traveller did not tell him he had to pay for his own advertisements. The plaintiffs ultimately printed the almanacs without Mr. Clear's advertisements. His name was printed on the front page, and on the back page was a picture of a man drawing a tooth. Mr. Clear cancelled the order. The Judge held that the plaintiffs were entitled to recover, because defendant, if he had read the circular, would have seen that he could not advertise his own preparations without payment. The plaintiffs claimed 5*l.* 18*s.* 1*d.*, and his Honour gave judgment for 4*l.*, at which sum he assessed the damages sustained by them down to the time Mr. Clear cancelled the order.

Bankruptcies and Failures.

Re EDWIN OWEN, trading as a chemist at Newtown, Salop.—At Newtown County Court on June 15, Judge William Evans sanctioned in this matter a scheme of composition by which it was proposed to pay 7*s.* 6*d.* in the pound in three months.

Re WILLIAM NEWTON, 39 Mincing Lane, E.C., analytical chemist.—The first meeting of creditors under this failure was held on Monday at the London Bankruptcy Court, before Mr. G. W. Chapin, Official Receiver. The debtor, who has carried on business in partnership with others under the style of "Cannon & Newton," states that he commenced in 1884 at 13 Fenchurch Street, removing to his present address in 1891. A sum of 600*l.* was owing to the firm in July, 1903, by the Argentine Borax Company (Limited), now in liquidation. He obtained an advance on that judgment debt, and employed a solicitor to conduct the business. Being dissatisfied with the amount charged for costs, he wrote the solicitor a letter, in respect of which a libel action was instituted, and a verdict for 100*l.* damages was given against him last March. He appealed against

that verdict, but was not in time, and the appeal was dismissed. To the loss of those actions and consequent legal expenses, combined with loss of business through trade depression, the failure is attributed. The statement of affairs shows liabilities 1,243*l.* 10*s.* 7*d.* and assets *nil*. In the absence of any offer the case was left in the hands of the Official Receiver to be wound up in the ordinary course of bankruptcy, the debtor's public examination being fixed for July 22.

Deeds of Arrangement.

Martin, William Thomas, 16 and 17 Cliffe High Street, Lewes, chemist and dentist. Trustee, Thomas A. Carpenter, Lewes, actuary of savings-bank. Dated, June 16; filed, June 20. Unsecured liabilities, 1,730*l.* 11*s.* 9*d.*; estimated net assets, 1,200*l.* 6*s.* 2*d.* Assignment upon trust, &c., of policies and debts, and covenant by Thomas Martin (debtor's father), The Broadway, Bromley, Kent, gentleman, to pay to trustee, through his legal representatives, the sum of 1,027*l.* 16*s.* 2*d.* within eight months after the death of the said Thomas Martin or his widow (if any) upon the same trusts. The following are creditors:

	£	s.	d.
Armstrong, Miss, Lewes	15	0	0
Baiss Brothers & Stevenson (Limited)			
London	181	0	0
Bannister & Sons, Newhaven	43	0	0
Barclay & Sons (Limited), London	27	0	0
Barron, Harveys & Co., London	62	0	0
Browne & Crosskey, Lewes	18	0	0
Bush, W. J., & Co., London	23	0	0
Bygrave, J., & Sons, London	101	0	0
Cardon, H., Brighton	25	0	0
Cooper, W., & Nephews, Berkhamstead	15	0	0
Earl, General, London	165	0	0
Edwards, W., & Son, London	27	0	0
Evans & Co., London	13	0	0
Every, J., Lewes	50	0	0
Harrison, G. W., Reading	20	0	0
Hillman, C., Hove	25	0	0
Hodgkinsons, Clarke & Ward, London	14	0	0
Hodson, J., Kingston	25	0	0
Hopwood, C. H., London	25	0	0
Kent, G. B., & Sons (Limited), London	24	0	0
Kent, G. P., Lewes	13	0	0
Luck, P., Eastbourne	25	0	0
Maw, S., Son & Sons, London	37	0	0
Mitchell, C., Lewes	56	0	0
Mitchell, H., Lewes	197	0	0
Montgomery, —, Uckfield	10	0	0
Robinson, J. & H., Ilford	20	0	0
Sutton, W., & Co., London	83	0	0
Tebb, W., Burston	50	0	0
Thompson, C., Lewes	25	0	0
Tittensor, G., London	10	0	0
Towner, C. W., Newhaven	14	0	0
Uridge, J. T., Lewes	19	0	0
Vinall, L., Lewes	13	0	0

Patterson, James, 102 High Road, Ilford, chemist and druggist. Trustees, Edwin K. Bishop, Pratt Street, Camden Town, director of Idris & Co. (Limited), and another. Dated, June 9; filed, June 16; secured creditors, 283*l.* 15*s.* 1*d.*; unsecured liabilities, 615*l.* 14*s.* 10*d.*; estimated net assets, 462*l.* The following are scheduled as creditors:

	£	s.	d.
Baiss Brothers & Stevenson (Limited), London	67	0	0
Bishop, C. M., Ilford	17	0	0
Butler & Crispe, London	233	0	0
Calvert, F. C., & Co., Manchester	10	0	0
Edwards Brothers, London	31	0	0
Erasmie Co. (Limited), London	11	0	0
Idris & Co., London	215	0	0
Lambert, Son & Watkins, London	10	0	0
Lewin, G., Ilford	15	0	0
Lorimer & Co. (Limited), London	12	0	0
Maw, S., Son & Sons	45	0	0
Meggesson & Co. (Limited), London	31	0	0
Price's Patent Candle Company (Limited), London	17	0	0
Willows, Francis, Butler & Thompson (Limited), London	37	0	0

THE INDIAN GOVERNMENT have decided to establish a Pasteur Institute at Coonoor, where a site is being selected.

Gazette.

Partnerships Dissolved.

Meredith, J., and Hawksley, A., under the style of Meredith & Hawksley, herb beer brewers and cordial manufacturers.

Britt, J. D., and Trueman, H. A., under the style of the Favourite Company, Neath, Glamorganshire, aerated-water manufacturers.

The Bankruptcy Acts, 1883 and 1890.

RECEIVING ORDERS.

Joseph, Hans Hertz, Newport, Monmouthshire, tooth-manufacturer.

Peck, F. W., Glenelcon Road, Streatham, S.W., chemist out of business.

ADJUDICATIONS.

Tims, Alfred Henry (carrying on business as A. H. Tims & Co.), Poland Street, W., dental manufacturer.

Thomas, Thomas Henry, late Birmingham, chemist and druggist.

New Companies & Company News.

SOLENE CO. (LIMITED).—Capital 1,000*l.*, in 1*l.* shares. To carry on the business of manufacturers of and vendors of proprietary articles of all kinds, is one of the objects. Registered office, 2 Budge Row, E.C.

DE GUISE (LIMITED).—Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of, *inter alios*, chemists, druggists, dealers in perfumery, condiments, essences, &c. The first directors are J. H. Isaacs (chairman), R. A. Rochfort, and J. E. Jenkins. Remuneration, 10 per cent. of the net profits, divisible.

YEATES AND SON (LIMITED).—Registered in Dublin. Capital 5,000*l.*, in 1*l.* shares. Objects: To carry on the business of opticians, mathematical-instrument makers, acetylene-gas apparatus manufacturers, artificial-limb makers, &c. The first directors are A. E. Yeates and P. C. Curtis. Qualification, 100*l.*; remuneration, as fixed by the company. Registered office, 2 Grafton Street, Dublin.

CEYLON (PARA) RUBBER COMPANY (LIMITED).—Capital 20,000*l.*, in 1*l.* shares. Objects: To carry on in Ceylon or elsewhere the business of indiarubber-planters, farmers, cultivators of indiarubber, tea, cinchona, coffee, cocoa, cardamoms, and fibre-producing grasses, plants and trees, importers of and dealers in indiarubber, tea, coffee, bark, quinine, tapioca, and other products, and to adopt an agreement with W. Forsythe.

THOMSON, CRAIK & CO. (LIMITED).—Registered in Edinburgh. Capital 7,000*l.*, in 1*l.* shares. Objects: To acquire (1) the aerated-water business carried on by W. B. Thomson in Perth and Blackford, and (2) the business of aerated-water manufacturers and beer-bottlers carried on by John Craik & Co., in Perth and elsewhere, and to carry on and develop the same. The first directors are A. Thomas, J. Craik, F. Lindsay, and W. W. Kay. Qualification, 200*l.* Remuneration, as fixed by the company.

WALL STREET WORKS (LIMITED).—Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of drysalts, oil-merchants, manufacturers of and dealers in petroleum and tar products, colours, varnishes, soaps, drugs, and chemicals, refiners of tallow and grease, makers of and dealers in proprietary articles, &c., and to acquire from D. S. Copley, of Glasshouses Buildings, City Road, Manchester, certain plant, utensils, materials, and book-debts. The first directors are D. S. Copley and W. Ogden. Qualification 25*l.*; Remuneration (except managing director) as fixed by the company. Registered office, 6 Brown Street, Manchester.

ANCHOR AND CROSS BOTTLE WORKS SYNDICATE (LIMITED).—Capital 6,500*l.*, in 6,000 ordinary shares of 1*l.* each and 2,500 founders' shares of 4*s.* each. Objects: To adopt an agreement between the Liardet Non-Refillable Bottle Company of the 1st part, A. C. C. Liardet of the 2nd part, and F. J. H. Sheppard (for this company) of the 3rd part, and to carry on the business of manufacturers of glass, bottles, bottle stoppers, jars and tubes, &c. No initial public issue. The first directors are S. M. Benson, J. C. W. Madden, V. C. P. Martin, W. H. Short, and A. A. Tilleard, each of whom may retain office while holding 500 founders' shares. Remuneration (except managing director), 250*l.* per annum, divisible. Registered office, Bush Lane House, Cannon Street, E.C.

GASPE SYNDICATE (LIMITED).—Capital 12,000*l.*, in 1*l.* shares. Objects: To adopt an agreement with the Canada Petroleum Co., Limited, and Sir W. H. Bailey and J. D.

Harrison, the liquidators thereof, to construct and operate a line of pipes or conduits from the oil lands in the County of Gaspé, Quebec, to a point at deep water in the said county, to acquire any powers required for such purpose, to erect refineries, and works for the treatment and manufacture of petroleum and other mineral or vegetable oils or any chemical or other combination thereof, to search, bore, or mine for, refine, barrel, store, distribute and deal in petroleum, rock oil, coal oil, and hydrocarbons or any of the products of the same, &c. No initial public issue. The subscribers are to appoint the first directors. Qualification, 100*l.*; remuneration as fixed by the company.

OPFENHEIMER INSTITUTE (LIMITED).—Capital 5,000*l.*, in 1*l.* shares. Objects: To acquire, manufacture, administer, obtain the licence to use, sell, license others to use, administer, or sell, and generally turn to account a certain remedy for the treatment of nervous diseases, alcoholism, and morphine, cocaine, or other drug addictions, to acquire and turn to account any other medical or remedial preparations or processes, to construct or acquire and control sanatoria, hospitals, homes, and the like; to publish any periodicals, &c. The first subscribers are: W. T. Smedley, 11 Meeklenburgh Square, W.C.; F.C.A.; E. B. Koopman, 77 Avenue Road, Regent's Park, N.W., manufacturer; A. P. M. Rivolta, 14 Lyndhurst Avenue, Streatham, S.W., secretary; W. G. S. Tyacke, 15 Penge Road, S.E., gentleman; A. Cameron, 25 Faraday Avenue, Wimbledon, gentleman; R. J. Green, 158 Ranway Road, Forest Gate, secretary; and H. W. Tilley, 18 Great Winchester Street, E.C. No initial public issue. The first directors are E. B. Koopman and W. T. Smedley. Registered office, 4 Denman Street, London.

NOCRIZE CO. (LIMITED).—Capital 2,000*l.*, in 1*l.* shares. Objects: To carry on the business of manufacturers of and dealers in foods for invalids and other food specialties, wholesale and retail manufacturers of and dealers in provisions of all kinds, whether solid or liquid, farmers, millers, bakers, grocers, butchers, chemists, druggists, drysalts, importers, and manufacturers of and dealers in pharmaceutical, medicinal, chemical, and other preparations and articles, makers of and dealers in proprietary articles, &c. The first subscribers are: G. H. Martyn, Abbey Drive West, Grimsby, merchant; O. H. Chapman, Aintree, Lincoln, medical practitioner; Mrs. C. A. Wallis, Aintree, Liverpool; R. C. Johnson, 29 Old Market Place, Grimsby, chemist; A. E. Baxter, Tasburgh Street, Grimsby, assistant; J. S. Dent, 29 Old Market Place, Grimsby, chemist; and K. Johnson, 29 Old Market Place, Grimsby, clerk. No initial public issue. The first directors are O. H. Chapman, J. S. Dent, R. C. Johnson, and G. H. Martyn (chairman). Qualification, 100*l.*; remuneration, as fixed by the company. Registered office, 1 Old Market Place, Grimsby.

PARKE'S DRUG STORES (LIMITED) announced the payment of the interim dividend on the ordinary shares for the half-year ending March 31, at the rate of 6 per cent. per annum, less income-tax. The transfer-books will be closed from June 23 to 30 inclusive.

CORRECTING THE REGISTER.—The fact that the following companies have been struck off the register has been gazetted: Cresco-Fylma and Hannam (Limited), Patent Films Syndicate (Limited), and South Durham Alkali Company (Limited). It is also stated that in three months from June 17, 1904, the following will be struck off unless reasons to the contrary are shown: Castleford Glass-bottle Company (Limited), Chrome and Bichromate Company (Limited), City Glass and Bottle Company (Limited), London and Manchester Oil and Soap Company (Limited), Queenborough Chemical Company (Limited), and Universal Disinfectant Company (Limited).

GERMAN CHEMICAL COMPANIES' DIVIDENDS.—The reports of the following German chemical companies show that profits during the past year were well maintained. The Badische Anilin- und Soda-Fabrik, of Ludwigshafen, made a gross profit of 583,000*l.*, and a dividend of 26 per cent. has been declared. The German Solvay Company, of Bernburg, show net profit 342,000*l.*, but no information is available as to the manner in which the profit is to be dealt with. The Consolidated Alkali-works (Westereghen) Company made a net profit of 108,000*l.*, and a 17-per-cent. dividend has been declared. The Ronnenberg Alkali-works Company, of Hanover, have incurred a loss of 13,700*l.* The chemical-works (late Weiler-ter-Meer) Company, of Verdingen, will pay a dividend of 10 per cent. The Chemical-works (formerly H. & E. Albert) Company, of Amoneburg-Biebrieh, show net profits 137,800*l.*, and declare a 15-per-cent. dividend. The Farbwerke vorm. Meister, Lucius & Brüning, of Hoechst-on-Main, have declared a dividend at the rate of 20 per cent., and the directors propose to increase the share-capital from 850,000*l.* to 1,000,000*l.* The Farbenfabriken vorm. Fred Bayer & Co., of Elberfeld, made a net profit of 301,000*l.* in 1903, and propose paying a dividend of 25 per

cent. The Farbwerke Muhlheim vorm. A. Leonhardt & Co. are to pay a 4-per-cent. dividend. The Chemical-industry Company, of Gelsenkirchen, propose to pay a 3-per-cent. dividend; and a dividend at the rate of 10 per cent. is to be paid by the Landshoff & Meyer Company, of Grunau, near Berlin.

Westminster Wisdom.

(From our Parliamentary Representative.)

THE PHARMACY BILL.

The second reading of the Pharmacy Bill is provisionally fixed for July 4, but it is recognised that no progress can possibly be made with it during what remains of the present Session. It is even doubtful whether the Bill promised by the Government to be introduced in the House of Lords will see the light this year. If it does, it is very unlikely that it will reach the House of Commons before the prorogation.

THE DIFFERENTIAL DUTY ON SPIRITS.

In political circles at Westminster there is little if any disposition to attach importance to the rumour that it is the intention of the Government to reduce the differential Customs-duty on spirits from 5*d.* to 4*d.* in consequence of the agitation for tax-free alcohol. Among those who are likely to be well informed it is regarded as highly improbable that any such reduction will be made in view of the opposition with which the Finance Bill is being assailed, and the desire of the Government to refrain from doing anything which would be calculated to retard still further its progress through the House. Such an alteration in the incidence of taxation would of course necessitate the insertion of a new clause, and inasmuch as this would be seized upon as a pretext for further delaying the progress of the Bill, more time would be occupied than the Government are prepared to give at the present juncture. Mr. Austen Chamberlain is said to have had the matter under consideration, but if any action is taken it will probably not be till the next Budget is introduced.

WEIGHTS AND MEASURES (METRIC SYSTEM) BILL.

This measure came down from the House of Lords on June 9, and was read a first time. The second reading was postponed on Thursday, June 16, until Wednesday, June 22, and again held over.

MEDICAL AND DENTAL COMPANIES.

A few minutes after midnight on June 17, Sir John Tuke obtained from the House of Commons an order for a return "showing the number and names of companies registered under the Companies Act, 1862, in England and Wales, Scotland, and Ireland, for the specific purposes of carrying on medical and dental practices."

SHOPS (EARLY-CLOSING) BILL.

This measure has gone through the Committee stage under Mr. Ellis's chairmanship in a rather rapid fashion considering the pages of amendments that the Committee have to go through. On Thursday, June 16, they had got as far as Clause 3, which was passed with various slight amendments. Mr. Cohen had proposed one to permit Jews to keep their shops open on Saturdays from sunset to 10 p.m., if that happened to be an early-closing day; but his amendment was defeated, as was also one by Sir Frederick Banbury which was intended to allow any shopkeeper to keep his shop open after the statutory closing-hour provided he served customers himself, and no assistants were employed after that hour. Mr. W. F. Lawrence has an amendment on the paper to provide for Sunday closing, which seems an unnecessary proceeding; and Sir Francis Powell wishes to exempt from early-closing orders any shop where the members of the owner's family are employed and where the shop is attached to a dwelling-house.

The Committee met again on Tuesday, June 21, when Sir F. Banbury objected to the question that Sub-clause 3 of Clause 3 stand part of the Bill, because of the provision that any order made under the Act should be laid before each House of Parliament for at least forty days. The Attorney-General undertook to provide later on for an order to cease if an address be carried in Parliament against such order. Thus appeased, Sir F. Banbury permitted the Committee to proceed. Clause 4 provides for

the revocation of a closing-order. Mr. H. Samuel wished to make it apply to amending an order, as when change of the hour of closing is agreed upon, but the majority was against him. There was also some discussion on Clause 8, which makes definitions, and Sir F. Banbury succeeded in carrying an amendment making the local authority in London, outside the city, the Borough Councils, each acting for its district, and not the London County Council. It was also agreed that the Councils of urban districts with a population of over 20,000 should be local authorities within the meaning of the clause. It was further agreed that any expenses incurred by a metropolitan borough council under the Act shall be defrayed as part of the expenses of the Council, and those of an urban district council are to be taken as part of the general expenses incurred in the execution of the Public Health Acts. An amendment defining "class of shops" as shops which supply a particular class of goods, as distinguished from family shops, was rejected. In answer to the question whether a shopkeeper who has fifteen or twenty shops next door to one another, selling so many different classes of goods, would have fifteen or twenty votes, the Attorney-General said the question must be one of fact in each particular case. If they communicated *inter se* they would probably be one shop, but he deprecated any attempt at definition in the Bill. Mr. Cochrane said the Home Office would advise local authorities as far as possible to adopt the same procedure in the matter. The Bill, as amended, was ordered to be reported to the House.

No date has yet been fixed for the consideration by the House of Commons of the Shop-hours Bill as amended by the Standing Committee on Trade. When the Bill comes up for further discussion an interesting debate is expected, and attempts will be made to reverse the decision arrived at by the Committee on certain points. Particular exception is taken by some members to Sir F. Banbury's amendment making the Borough Councils the local authority for the metropolis in place of the County Council.

"CASH ON DELIVERY."

Replying to Mr. Runciman, Lord Stanley (the Postmaster-General) said the question of the introduction of a postal "cash-on-delivery" system is still under consideration, but he is not yet in a position to say when circumstances will admit of a decision.

College Notes.

THE NOTTINGHAM SCHOOL OF PHARMACY, established by the late Mr. A. Russell Bennet, has been taken over by Mr. Septimus Royce, pharmaceutical chemist, formerly lecturer and demonstrator at the London College of Pharmacy.

IMPERIAL COLLEGE OF CHEMISTRY.—On June 16 the students of this College, with their Principal, Mr. Frederick Davis, paid a visit, by kind permission of the directors of the Orient Line, to the *Orontes* in the Tilbury Dock. The students were delighted with the vessel and the comfortable arrangements. After taking tea on board, the party returned to town.—Messrs. Wright, Layman & Umney (Limited) have sent a number of large fresh specimens of *Atropa Belladonna* for the use of the students of the College.

WESTMINSTER COLLEGE OF CHEMISTRY AND PHARMACY.—On June 16 the students of this College had their last botanical excursion of the session to Kew. The party left the Bank Station at one o'clock, and, after spending about three hours in the Gardens, the students adjourned to the Rose and Crown Hotel, where a substantial tea was provided by the Principal (Mr. G. S. V. Wills). During the evening a smoking-concert was held, in which a number of old pupils took part. The usual toasts, good wishes, &c., were exchanged, and the party returned to town about nine o'clock.

NORTH OF ENGLAND SCHOOL OF CHEMISTRY AND PHARMACY.—The students of this School, accompanied by the Principal, Mr. F. R. Dudderidge, held their annual outing at Morpeth on June 18. During the forenoon Mitford was visited, and in the afternoon the Chapel Woods were explored. Many botanical specimens were collected and described during the ramble. "Mine host" of the Earl Grey Hotel catered in his usual excellent style for the party. After tea Mr. Dudderidge announced that at the new term he was to be joined in partnership by Mr. John G. Murdoch, Ph.C., his assistant during the last two years, and Mr. Murdoch suitably responded to the congratulations and good wishes of the party.

Summer Outings.

EVANS LESCHEER'S S.A.O.

The employés of Messrs. Evans Sons Lescher & Webb (Limited) at 60 Bartholomew Close, E.C., had a "Saturday afternoon outing" on June 18. The party left Cannon Street station at 2.34 p.m. for Orpington. From there they had a pleasant brake-drive to Downe, where "high tea" was provided at the Queen's Head. After tea a most enjoyable concert was given. Much regret was expressed at the absence, through illness, of Mr. J. H. Rogers, the Hon. Secretary of the Organising Committee. Votes of thanks were accorded to the company, to the Chairman (Mr. J. Podmore), to the committee and artistes, and to Mr. Anderson, the warehouse manager, for his sympathy with the movement. The party left Orpington for home shortly after 10 p.m., having spent an enjoyable afternoon.

HAPPY HERALISTS.

On June 18 the employés of Messrs. Potter & Clarke visited Brighton on the occasion of their twenty-first annual excursion, and, being favoured with fine weather, a very pleasant day was spent. Mr. R. C. Wren presided at dinner, to which seventy-seven sat down, at the Unicorn Hotel, and replied to the toast of "The Firm," proposed by Mr. C. N. Turner. Greetings were received from Alderman H. Potter, and from Alderman Goddard Clarke, L.C.C., who telegraphed from Plymouth. The afternoon was occupied in driving to Shoreham and back, for which purpose the committee had chartered four large brakes, leaving the hotel at 2.45, returning for tea at 5.30. The party arrived at London Bridge about ten o'clock, after having spent, according to general consent, one of the most enjoyable outings of the series.

LEEDS PICNICKERS.

The annual picnic arranged for by the Leeds and District Chemists' Association took place on June 15. The party, which numbered about fifty and included many ladies, left the Leeds Midland Station for Grassington at 2 p.m. in saloon carriages, and the well-known Upper Wharfedale village was reached about an hour and a half afterwards. At Grassington char-a-bancs were in waiting for the party, and a most enjoyable drive to Burnsall followed; the weather, which had been dull and threatening in the early portion of the day, turning out fine. The Red Lion Inn at Burnsall was found a convenient resting-place for half-an-hour. The return drive to Grassington enabled the party to pass through the old-time hamlet of Hebden, and to get glimpses of some of the most interesting scenery in a district famous for its natural and varied beauties. The Devonshire Hotel, Grassington, was reached in due time, and there an excellent knife-and-fork tea was provided. A spare hour after tea was devoted to music, the ladies contributing some of the most enjoyable vocal items. The Vice-President of the Association (Mr. W. O. Pollitt, of Leeds) discharged the duties of chairman in the unavoidable absence of the President (Mr. Worfolk, of Ilkley). The return journey from Grassington to Leeds was completed without changing carriages, and praise is due to the special committee for the excellent arrangements made.

KENT IN SUSSEX.

At the Royal Pavilion, Brighton, on Saturday, June 18, a contingent (numbering about 130) of the male employés of Messrs. G. B. Kent & Sons (Limited) at Farrington Road, E.C., Victoria Park, E., and Apsley, assembled to dinner. The occasion was the annual beanfeast of the workers, and the chair was occupied by Mr. G. Harold Kent. After a substantial and obviously appreciated repast, the Chairman gave the loyal toasts, which were accorded musical honours. "The Limited Company" was then proposed by Mr. Cholmondeley Wood in an eloquent oration, which roused the company to a fervour of enthusiasm. He traced the progress of the firm from "G. B. Kent & Co." to "G. B. Kent & Sons" onward to the "company" stage, extolling the energy which the younger members of the firm had brought into the business. With "the Sons" had come the abolition of old-fangled systems and the introduction of methods more in accord

with the spirit of the times. He wished the Company a perpetuity of prosperity and a continuity of success. Mr. Ernest N. Kent, who replied, said the Company were proud of their success, of their products, and particularly of their employés, who stayed with them for so many years. The business of the Company was in as healthy a condition as ever, and they appeared to be getting more than their own share of business in these hard times. The Chairman proposed "The Employés" in a graceful and appreciative speech, and Mr. W. Benwell (who has been fifty-eight years in the employment of Kent's) replied in a manner that elicited the unstinted approval of his co-adjutors. Incidentally Mr. Benwell mentioned that 200 of the girl employés were enjoying their outing elsewhere that day, and another contingent were to have a day later on. The "Harold Benevolent Fund" was next proposed by the Chairman, who explained that the 117 members comprising the fund by paying sixpence a week received substantial half-yearly bonuses besides greater consideration when sickness or misfortune overtook them. He hoped more would become members and participate in the benefits. The final toast was "The Visitors," proposed by the Chairman and replied to by Mr. Longden. The weather was glorious, and the excellent arrangements made by Mr. Benwell, and personally superintended by him with painstaking patience, contributed much to the whole-souled enjoyment of the world-known "British-Brush" makers.

Association Affairs.

Tunbridge Wells Chemists' Association.

A MEETING was held on Tuesday evening, June 21, at 33 Mount Pleasant, Mr. A. E. Hobbs (President) in the chair. A representative gathering of the members was present.

Letters were read by the SECRETARY dealing with the Early-closing Bill, the proposed testimonial to Mr. Glyn-Jones, and the annual meeting of the Federation of Local Associations; and the respective questions were dealt with.

The following gentlemen were appointed as delegates to the British Pharmaceutical Conference as well as to the Federation: Messrs. A. E. Hobbs, H. S. Pearmund, and S. V. Booth.

THE PRESIDENT then drew the attention of the members to the high compliment paid to the first President of the Association, Mr. R. A. Robinson, in his election to the Presidency of the Pharmaceutical Society. As an association and individually they were all anxious to express the hope that his year of office would prove a pleasant one, and be valuable in furthering the cause of pharmacy. A very hearty vote of congratulation and good wishes was passed unanimously, and the Secretary was instructed to forward the resolution to Mr. Robinson, and at the same time to express the hope that he would be able to meet them at Tunbridge Wells in the autumn in his official capacity.

MR. E. B. VIZER, a very old member of the Pharmaceutical Society, drew attention to the death of Mr. Elias Bremridge, and in a few words referred to his long and valued acquaintance with him, and submitted the following resolution, which was supported by the PRESIDENT, and carried unanimously:

In recognition of the valuable services rendered by the late Elias Bremridge to the cause of pharmacy, as a founder and subsequently for twenty-seven years (dating from 1857) as Secretary of the Pharmaceutical Society, the members of this Association desire to express to his family their high appreciation of those services, and their sincere condolence with them under the loss they sustain by his decease at the venerable age of ninety-three.

The Secretary was instructed to send a copy of this resolution to Mr. Richard Bremridge.

Forfarshire Chemists' Association.

THE annual meeting of this Association was held at the County Hotel, Forfar, on June 22, Mr. Park presiding. There were present Messrs. A. B. Anderson, John Anderson,

Charles Kerr, John Doig, John Russell, William Cumming (Dundee), Messrs. Naysmith and Whyte (Arbroath), Mr. Hutton (Brechin), Messrs. Park and Fleming (Broughty-Ferry), Messrs. Johnstone and Macfarlane (Forfar), Messrs. Peebles and Thomson (Lochee), Mr. Harley (Perth), Mr. Knox, President of the Forfar Field Club, and Mr. Taylor (B. W. & Co.). Apologies were read from Mr. Currie (Glasgow), Mr. Hill (Edinburgh), Mr. Kermath (St. Andrews), and Messrs. Jack and Robertson (Arbroath).

The CHAIRMAN then referred to the business that had been before the Association during the past year, and expressed his gratitude for the support he had received during his chairmanship.

The SECRETARY presented the financial report, which showed a favourable balance in hand.

Mr. J. H. Thomson (Lochee) was elected President, Mr. James Russell Vice-President, and Mr. W. Cummings re-elected Secretary. The committee were re-elected with the exception of Mr. J. Anderson and Mr. Greig, removed. Messrs. A. B. Anderson, J. Russell and A. Naysmith were appointed delegates to the British Pharmaceutical Conference. Mr. HARLEY invited the Association to hold their next meeting in Perth.

A special vote of thanks was awarded to Mr. Macfarlane, who had made the arrangements for the meeting.

At the dinner which followed a number of ladies were present. Mr. KNOX proposed "Success to the Association," and said how gratified he was that the Association had started the Don memorial with such a handsome subscription, the total amount of which was now some 110/. Mr. PARK returned thanks. Mr. KERR proposed "The health of Mr. Knox," and referred to his own early connection with the county town. Mr. TAYLOR proposed "The health of the Chairman" in complimentary terms. Thereafter the party, under the guidance of Mr. Knox, visited the Reid Park and other places of interest in Forfar. The drive between Forfar and Dundee was much enjoyed. The genial "Wizard of the North," artist and art-critic, editor, chemist and doctor to everybody, circulated the subjoined at the annual meeting:

A "Dis" Association Ballad.

THE PURPOSE.

*The Poet and his ditty work,
His trials which misfortune brews,
His mental strain from morn to mirk
(Which he would very gladly shirk)—
These be the objects of our muse.*

Air—"THE PIPER O' DUNDEE."

WHEN druggists come to oor toon,
To oor toon, to oor toon;
When druggists come to oor toon,
We treat them handsomely.
Come they frae East, come they frae West,
Whaever that their lot is east,
We mak' them feel at hame fu' fast,
When they come to Dundee.

Chorus—

We fill their caup and cogie,
A brimmin' caup and cogie,
We coup a cheerin' cogie,
When they come to Dundee.

An' should a poet come amang
The Druggist chiel wi' cheery sang,
Wi' him we aye get unca thrang,
An' made oorsel's fu' free.
It's seldom drugs and ditties join,
Or Chemist-Poet do combine,
Yet there's a lad—I ken him fine—
Fate made him C. and D.

An' fegs! he is a rogie,
A ballad-singin' rogie,
A lyric-liltin' rogie,
Chalmers, C. and D.

ALLEGED DISPENSING-ERROR.—A druggist of Charleston, Mass., is defendant in a suit for \$10,000 damages. It is stated that the physician attending the patient ordered laxol, a combination of castor oil and peppermint, whereas the druggist misread the name and dispensed lysol, the disinfectant.

Trade Notes.

MESSRS C. J. HEWLETT & SON will close their warehouse on Saturday, June 25, for the annual outing of their staff.

OOWANA (LIMITED) are removing on July 1 from 205 Victoria Street to 26 Red Lion Square, W.C., where their new telephone number will be "11,110 Central."

MESSRS. STEELE & MARSH, chemists, Bath, have been appointed by the board of directors in Spain sole agents for the sale of Insalus water in Great Britain and the Colonies, the wholesale depôt being with Messrs. Ingram & Royle, 26 Upper Thames Street, London, E.C.

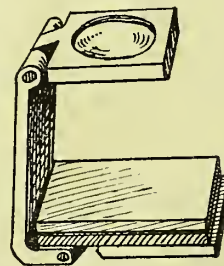
"WHERE THERE IS MUCH FREEDOM, THERE IS MUCH ERROR" is one of the many aphorisms that head the pages of the new illustrated catalogue of cash register-tills issued by the British Machine Company (Limited), West Parade Works, Halifax. The advantages of taking care of the cash are pungently advocated in the pages of the catalogue, and the mechanism, advantages, and latest improvements in these British-made machines are set forth in type and engraving. Careful chemists (and what chemist worthy of the name is not careful?) will do well to investigate the merits of the Jackson patents by sending for a copy of the catalogue.

"UNICUM" SHUTTER-STOP.—The little convenience for users of the Bausch & Lomb "Unicum" shutter which is here figured is supplied by Messrs. A. E. Staley & Co., 19 Thavies Inn, E.C. This stop enables the user of the shutter to keep the shutter open for focussing without altering the setting of the shutter. The projecting piece, which is hinged, is simply dropped, the trigger of the shutter released and the shutter is fixed open. On raising the hinged piece the shutter is again in position for using for exposure-purposes. The stop sells at 1s.



A NEW DEPARTURE.—A well-printed price-list of quarto size, and containing forty illustrated pages, has been issued by Messrs. Burgoyne, Burbidges & Co., of 12 and 16 Coleman Street, E.C., which is devoted mainly to toilet, medicinal, and household specialties produced by that firm. The trade in "own-name" preparations has become so recognised a part of the modern chemist's business that the issue of this list by the well-known Coleman Street firm will create a curiosity and interest which a perusal of the pages of the list will amply repay. "Red Cross" surgical specialties and veterinary preparations are likewise included in the list.

GLEW'S SCINTILLOSCOPE.—The little instrument figured here has been designed by Mr. F. H. Glew, chemist, 156 Clapham Road, S.W., with a view to showing the scintillations produced by the *alpha* rays of pitchblende. The scintilloscope is the outcome of an observation made by Mr. Glew that as the *alpha* rays have but feeble penetrative power it is necessary that the rays impinge directly on to the sulphide screen to make their presence visible. The little slide is prepared by placing together two thin pieces of glass; the under one has its upper surface coated with pitchblende, whilst the upper glass has its under-surface coated with zinc sulphide, which is rendered luminous by the pitchblende. The slide is placed below the lens, which has a focus of about $\frac{1}{2}$ inch, and in this way the scintillations can be easily observed in a dark room. It is necessary to remain in the dark for five or ten minutes, to get the eyes well rested, before the maximum effect of the scintillations is observable. The screen is luminous, and from the surface little points of light are seen to be constantly shooting up. The sensitiveness of the scintilloscope is much greater than that of the Crookes' spintharoscope. The instrument will shortly be available in a cheaper form to sell at 7s. 6d.



P.A.T.A. ADDITIONS.—The following proprietaries have been added to the P.A.T.A. protected list during June: Bovinine, "Dulsoline" preparations, Galloway's cough syrup; Martindale's "Extra Pharmacopœia," amyl nitrite and other capsules, effervescent preparations, nitroglycerin and other tablets, inhalers (various), emulsions (various), &c., vibrona. The following are no longer on the P.A.T.A. protected list: Coleby's balsam, Spiritine, and Varvein.

Personalities.

MR. F. E. TURNER, of Pietermaritzburg, Natal, is now paying a visit to the Old Country.

MR. G. W. BERNINI-PALMER, chemist and druggist, Princetown, South Devon, has been elected a Fellow of the Royal Meteorological Society.

DR. A. P. LUFF has resigned his appointment as scientific analyst to the Home Office, owing to the increasing demands of his consulting practice.

MR. HERBERT JENKINS, late chemist to the Royal Westminster Ophthalmic Hospital, was elected a Fellow of the Chemical Society at the meeting last week.

SIR DANIEL MORRIS, K.C.M.G., Agricultural Commissioner for the West Indies, received the degree of D.C.L. from the Durham University on Wednesday.

MR. T. B. OUIRED, chemist and druggist, now dispenser to the Hackney Board of Guardians, has been appointed dentist at the children's homes at Brentwood.

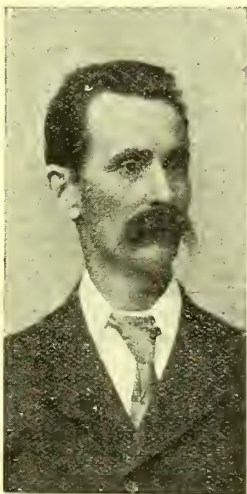
MR. HETHERINGTON, chemist, Brighton, Melbourne, Vic., has sold out his business in order to spend a lengthy holiday at home. He arrived at Liverpool ten days ago.

SIR WILLIAM SELBY CHURCH, BART., Sir William Crookes, Professor J. J. Thomson (Cambridge), and Professor James Dewar received the honorary D.Sc. degree from Oxford University on Wednesday.

MR. W. W. HOLYOAKE, chemist and druggist, Mackay, Queensland, is paying a visit to the Old Country. Mr. Holyoake negotiated the Minor in December, 1886, and thereafter went out to Queensland, where he also qualified.

ALDERMAN H. POTTER and ALDERMAN GODDARD CLARKE, L.C.C. (of Potter & Clarke, Artillery Lane, E.), took part in laying the foundation-stone of a new fire-brigade station in Burdett Road, E.—the former as representing the borough of Stepney, and the latter as a member of the Fire-brigade Committee of the London County Council.

MR. T. W. THOMASON, of Messrs. Thomason, Chater & Co., pharmaceutical chemists and wholesale druggists, Brisbane, Queensland, has been spending this week in London.



He is home on holiday until September, and travelled by Vancouver and New York, visiting a few of the principal cities in the United States *en route*, among them St. Louis. Mr. Thomason spent a week in the Louisiana Exposition, but was somewhat disappointed, chiefly owing to the backward state of the show; for although the time of his visit was a month after the Exhibition was opened, there was still much to be done outside as well as inside, while the exhibitors had not then awakened to the fact that the Exhibition is for promoting business. Thus in the British Court there was no one in attendance at the chemical and pharmaceutical section who could give information about the exhibits.

Mr. Thomason is a Royal Salopian by birth, and served his apprenticeship to pharmacy in Birmingham. He qualified in 1878, and was in business on his own account in Birmingham a few years thereafter, then went to Kings Cliffe, Northants, thinking that a country business

would give him better health. After some years there he sought a more genial climate in the Antipodes, intending to take up farming; but the fates threw a Brisbane pharmacy in his way, he bought it, and during the fifteen odd years he has been in the Colony he has not only done well for himself, but has served his calling well as a member of the Queensland Pharmacy Board and a councillor of the Pharmaceutical Society. Mr. Thomason is here to get away from business for a time, and his health has much improved by the trip home—in fact, he looks much more robust than in the portrait which we give of him.

MR. T. F. BROWN, of New Norfolk, Tasmania, who passed the Minor examination in July, 1897, and has since acted as examiner in chemistry to the Pharmaceutical Council of Tasmania, is returning to the Old Country, with Mrs. Brown and their only child. It is his intention to study in the medical department of the Edinburgh University, with a view to qualification.

Marriages.

COOMBE—TEW.—At St. Andrew's Church, Wolverhampton, last week, Frank Ernest Coombe, chemist and druggist, of 106 Stafford Road, Wolverhampton, to Ada Tew, of Wolverhampton.

HARRIES—REES.—At Trinity C.M. Church, Swansea, on June 23, by the Rev. F. Prythech, Benson Harries, chemist and druggist, Newport-upon-Usk, to Lizzie, daughter of Mr. James Rees, J.P., Haverfordwest.

Business Changes.

Properly authenticated business notices (not being advertisements) are inserted in this section free of charge if promptly communicated to the Editor.

THE LONDON DRUG COMPANY have opened premises at 541 Old Kent Road, S.E.

SPENCER'S DRUG-STORES have recently been opened at 88 Charing Cross Road, W.

MR. PERCY B. STORK, chemist and druggist, has opened a new pharmacy at Clough Bridge, Bridlington.

THE TIMOTHY WHITE COMPANY opened a new branch at 197 and 199 New Road, Portsmouth, last Saturday.

MR. A. GOWEN, chemist and druggist, of Fleet, Hants, has purchased the business of Mr. G. Vennall, chemist and druggist, at Cranleigh, Surrey.

MR. T. W. HAZELBY, chemist and druggist, of 94 Alma Road, Southampton, will shortly open an up-to-date pharmacy at Hungerford, Berks.

MESSRS. W. H. BAILEY & Co., 38 Oxford Street, and Rathbone Place, W., have acquired the business at 52 Fore Street, E.C., formerly belonging to Messrs. F. Walters & Co., surgical-instrument makers, which they will carry on as a branch.

PATENT-MEDICINE VENDORS AND DRUGS STORES ASSOCIATION.

THE annual meeting of the above Association was held at the Métropole Hotel, Leeds, on Wednesday, June 22, and was presided over by Mr. Walter Huntrod, Holbeck, who was chosen as President for the year. The annual report, which set forth the efforts which had been made to prevent the Pharmaceutical Society injuring the interests of the Association, was considered most satisfactory, and was adopted. Mr. Huntrod said that the Pharmaceutical Society was anxious to obtain for its members a professional status which would enable them to charge 1s. 6d. for that which might be obtained at a store for half the price. The Society had learned, at considerable cost, that no Government would grant a monopoly to any section of traders. Mr. Leggett was re-elected General Secretary and Mr. Beeby Local Secretary. Messrs. Barnett (Leeds), Crompton (Bury), Mason (Gateshead), and Whittaker (Accrington) were elected members of the committee.

Reviews.

Fractional Distillation. By SYDNEY YOUNG, D.Sc., F.R.S.
7 $\frac{1}{4}$ x 5. Pp. xii + 284. 7s. 6d. (Macmillan & Co., Limited.)

A THOROUGH master of the subject on which he writes, Professor Young presents, in this excellent book, a very complete account of the theory and practice of fractional distillation. Various forms of distillation apparatus are figured and described, and tables are given which show the results of elaborate quantitative and comparative experiments in the separation of mixtures of two or more liquids. While chemists who effect the separation and purification of mixed liquids, on the small scale, in the laboratory, are already indebted to the author for valuable improvements in the apparatus which they employ, this treatise adds to their indebtedness, and provides a text-book which may be studied with great advantage not only by the student of chemistry or of the theory of fractional distillation, but also by the practical man.

The Income-tax Burden. By T. HALLETT FRY, F.S.S.
8 $\frac{1}{2}$ x 5 $\frac{1}{2}$. Pp. 46. Paper covers 6d. (London: Horace Cox.)

MR. HALLETT FRY is an authority on income-tax, and his warm "plea for reform" will find many sympathisers among income-tax payers. The present pamphlet is an elaboration of the author's previous work, "Income-tax Anomalies," and many suggestions are put forward to lessen the unfairness with which the tax is levied in many instances. Mr. Fry says the doctrine that the worker should receive preferential treatment, and that the recipient of an income proceeding from invested capital should be burdened with a comparatively higher rate of income-tax, is daily gaining ground. He advocates differentiation between industrial and "spontaneous" incomes, condemns the taxation of voluntary offerings and the present system of local Commissioners settling finally questions of fact from which there is no appeal. He advises taxpayers to be chary of the "system" of "160l. abated," and considers that it might be advisable to increase the number of taxpayers (rather than raise the 160l. exemption limit) and decrease the individual burden.

Materia Medica, Pharmacology, and Therapeutics (Inorganic Substances). By CHARLES D. F. PHILLIPS, M.D., LL.D. 8 $\frac{3}{8}$ x 5 $\frac{1}{2}$. Pp. 921. 21s. (Longmans, Green & Co.)

THIS is the third edition of a useful book first published in 1882. It is now almost a new book, as it has been subjected to careful revision, and many sections have been entirely re-written and others eliminated to bring the book in line with modern discoveries. The sections on Oxygen, Nitrous Oxide, Baths and Waters, Arsenic, Silver, Iron, &c., are especially instructive, while modern therapy is carefully and comprehensively noted in the chapters dealing with the Cacodylates, Antitoxins, Open-air Treatment for Tuberculosis, and the Light and Heat Cures now so popular. Alphabetical order is mainly followed in the different remedies treated; gases and non-metallic elements coming first, then the halogens, then water in its various modes of use, next the acids, and lastly, the metals. The method adopted for each subject is clear and concise. In the case of oxygen, for example, mention is first made of the characters of the element, then of its absorption, physiological action (external and internal); then, in short paragraphs, its direct influence on various diseases. Ozone is described, and its physiological action, therapeutic action (externally and internally), and so on. Although the results of a long personal experience are reflected in the therapeutics of the book, it is by no means didactic, and the published and unpublished experience of others is incorporated without stint. The volume makes a useful reference-book for either pharmacist or physician, and a valuable index of diseases and remedies at the end of the book is not the least part of its worth. The volume under consideration deals only with Inorganic Substances, and a second volume of the new edition—dealing with Vegetable, Animal, and other Compounds—is in course of preparation.

Compounding and Dispensing made Easy. By H. HAROLD SCOTT, M.B., M.R.C.S., L.R.C.P., Lieutenant Royal Army Medical Corps. 4 $\frac{3}{4}$ x 7 $\frac{1}{4}$. 7s. 6d. (Aldershot: Gale & Polden, Limited.)

THE purpose for which Lieut. Scott has written this book is to furnish Army compounders with a boiled-down epitome of the galenical preparations of the British Pharmacopœia, and to inculcate the first principles of dispensing. A glance through its pages seems to indicate that he has succeeded as far at least as will be necessary according to present-day requirements to "assist candidates in compounding and dispensing for their promotion examination." The majority of pharmacists will, we imagine, be inclined to think that in a properly organised Army department such a book ought to be unnecessary. There should be no such thing as a "promotion examination for compounders" required, as long as there are properly trained and qualified chemists ready and eligible for such promotion and already examined. The opening words of the "Introduction" are likely also to make the pharmacist smile. "The subject of compounding and dispensing is not," writes the author, "we venture to think, to be regarded as one of very great difficulty." There are many expert pharmaceutical dispensers, with half a lifetime of dispensing behind them, who, "we venture to think," will resent the ingenuous complacency of that remark. However, on the whole the author has managed in the eighteen pages he devotes to dispensing to give his readers some sound and accurate advice. The reason for the accuracy is not far to seek. For has he not concluded the chapter with "the best summary of all that has been written to direct the would-be dispenser," taken (and acknowledged) from the *Chemists' and Druggists' Diary* of 1885 (q.v.)? Section II. treats of inorganic materia medica and the carbon compounds. Other sections are devoted to pharmaceutical processes and groups of pharmacopœial preparations (twenty-four pages); descriptions of the individual drugs of the organic materia medica and their various preparations employed in the British Pharmacopœia and Army forms. Twenty pages of "questions" relating to the material in the book are set at the end. The work is singularly free from the inaccuracies usually found in books of this kind written by medical men, and the aspiring compounder who studies it carefully and follows its precepts should have no difficulty with his promotion.

Coming Events.

Notices for insertion under this heading should be received by the Editor on Wednesday of each week.

Tuesday, June 28.

London Chamber of Commerce, Chemical-Trade Section, Oxford Court, E.C., at 2.30 P.M. The business includes the following items:—Duty-Free Alcohol: To report additions to the Joint Committee representing the Section and the Society of Chemical Industry; to receive report as to the present position of this matter, and take any action deemed advisable. To discuss the recently imposed Spirit-tax for Cape Colony, which is seriously affecting British exporters, and to take any necessary action. Ministry of Commerce: To consider the recommendations of the Government's Committee as to the formation of a Ministry of Commerce, and to take any action deemed desirable. Tariffs: To report the approaching expiration of four commercial treaties with Roumania, Switzerland, Portugal, and Holland respectively, in regard to which new treaties will have to be negotiated; to consider draft tariffs which have been circulated by the Government, on which the views of traders are desired.

Wednesday, June 29.

Cardiff Pharmaceutical Association. Picnic to Barry Island. Train leaves Riverside Station at 2.30 P.M. Mr. R. Mumford, Meteor Street, Cardiff, will supply further particulars.

Midland Pharmaceutical Association, Birmingham. Excursion to Dovedale. A special saloon train starts from New Street (L.N.W.R.) at 11.30 A.M. Mr. J. A. Radford, 14 Union Street, Birmingham, will supply tickets, 6s. 6d. each, to include the railway journey and meat tea. The last day for obtaining tickets is June 27, but numbers 1 to 50 will secure seats in the saloon carriage.



TO CORRESPONDENTS.—Please write clearly and concisely on one side of the paper only. All communications should be accompanied by the names and addresses of the writers. If queries are submitted, each should be written on a separate piece of paper. We do not reply to queries by post, and can only answer on subjects of general interest.

Tax-free Alcohol.

SIR,—An idea has got abroad that important concessions will soon be made by the Excise authorities in the matter of tax-free alcohol. There is considerable justification for the belief, but it would be well if your readers were reminded again, as was humorously done in a cartoon some little while ago, that the Treasury has almost the principal voice in the matter. The Treasury cannot in these days afford to dispense with so ready a source of revenue as the spirit-duties. It may be safely assumed that the efforts of years have not been without effect. Their attitude is very decidedly less negative than it was, thanks to "pegging away" and, latterly, influence in high quarters associated with one of the latest developments of "sport." Help will come, we have reason for believing, from an unexpected quarter, but the facility for using cheapened spirit in certain directions is limited by an existing law, which need not at the moment be specified, but it is more than probable that the law will be amended in an important particular, enabling that to be done which cannot be now. I know that very useful points are under official consideration—indeed, are on the point of being decided. Let it be clearly understood that, so far as I am informed, they will not do so much direct good to chemical-industry as is desired, but the object will be very considerably advanced. One great and serious matter is the denaturing question; and although I have myself little fear on the point, yet, having been informed of what has been done and still more attempted, I scarcely wonder at the hesitancy of the authorities. That this will be got over I have no doubt whatever.

Yours truly,

THOMAS TYRER.

Stirling Chemical-works, Stratford, E., June 22.

Taxing Proprietaries at the Cape.

SIR,—We have read with interest the article contained in your issue of June 18 regarding the stamping of proprietary medicines for sale in South Africa. It seems to us that a definition should be drawn between secret remedies or nostrums, and proprietary pharmaceutical preparations of declared composition that are sold only to fill prescriptions to the medical profession. Why these latter articles should pay 25 per cent. duty, while ordinary galenic preparations used for the same purpose are only taxed 10 per cent., we cannot understand. Our representatives have on several occasions protested against this to the proper authorities at Cape Town, but so far without avail. They state that all proprietary medicines, whether secret or not, are liable to the same amount of duty. It is distinctly understood from the argument our friends in South Africa raised against the Government that wherever medicines are free from stamp-tax in Great Britain, they should also be free from taxation in South Africa, and we consider that the thanks of the wholesale trade generally are due to those gentlemen who appeared in the deputation and protested so strenuously against the imposition of the tax on pharmaceutical preparations.

Yours faithfully,

OPPENHEIMER, SON & CO. (LIMITED).

179 Queen Victoria Street, E.C., June 22.

The Title of "Nurse."

SIR,—In reply to your correspondent "Exposer," will you allow me to say that the lady who called upon me was undoubtedly a fully-qualified hospital trained nurse of superior ability; and as the main object of the "professional" in any capacity is to earn a living, is the lady to be blamed for accepting from the "pill" advertisers a salary three or four times as large as that offered by any

hospital of most private patients? As regards ethics, are the lady's methods really inferior to those of "Exposer" or any ordinary chemist's salesman? It is true there is no profit on the pills, and this may partly account for "Exposer's" indignant explosion.

Yours faithfully,

Leyton, June 19.

J. SYDNEY MATTHEWS.

"Makes Kissing a Pleasure" ("Xrayser.")

Breathes there a man who thus would dare
Speak slightly of ladies fair?—
"On her alone I lay the blame
For coldness of love's flickering flame;
She must use 'Odol' without measure
If I in kissing would have pleasure."
To stop such libels is our duty
To Merrie England's youth and beauty.
Kissing needs no chemist's aid, sure
Kissing itself is aye a pleasure.—W. C. U.

"Mahogany Nuts."

SIR,—Having recently spent a week-end in the Matoppo Hills, near the "World's View," where Cecil Rhodes is buried, I gathered a few specimens of what are commonly known locally as "mahogany nuts." I submit a few herewith for verification of their identity. They are not nuts, as they grow, similar to peas or beans, in a pod. The trees I have found them on have been generally in hilly and mountainous districts at altitudes above the normal, and the tree itself at a height of from 15 to 40 feet. The specimens I send are rather in the advanced stage of fruition, as many of the pods I knocked down were "gaping," and some fully open. These with the red and black contrast are often mounted as brooches, pins, &c. From the information I have been able to gather there is great scope for botanic research in the districts between Kimberley and the Zambezi river, a space of over a thousand miles, which has never been botanised. Hooker's "Flora Capensis" stops short at Kimberley, 700 miles south of Rhodesia. Central Africa north of the Zambezi River, I believe, has been classified, but that classification begins over 300 miles north of Bulawayo. A fine scope for someone.

Yours faithfully,

Bulawayo, May 13.

E. BLEWETT.

[The seed sent, the so-called "Mahogany nut," is that of *Azalia guanzensis*, a leguminous tree confined to Africa. It is found in the Tropical zone and also south of the tropics at Delagoa Bay. The seeds are formed into trinkets, and may occasionally be bought in England. In some parts of East Tropical Africa the natives employ the wood with ferruginous mud as a black dye. The wood is hard, heavy, and close-grained, and should be useful for many purposes. That of *Azalia bijuga* is employed in India for bridge and house building, and in the Pacific Islands for war-clubs, cannibal dishes, forks, &c.]

Letters in Brief.

ORIGINAL SUBSCRIBERS TO THE "C. & D."—A firm in the North (165/28) write: "We believe our firm have subscribed to the *C. & D.* since its inception. It would be interesting to read in the *C. & D.* how many retail firms are still in existence who have subscribed to the *C. & D.* since it was first issued." This is one of a class of letters that we receive occasionally, and naturally they interest us. The first number of THE CHEMIST AND DRUGGIST was published on September 15, 1859. We shall be glad to hear from any still in the trade who have either subscribed since that time, or who were in business then and remember the first issue.

RETAIL AND WHOLESALE PRICES.—*Licourice* (167/22) thinks if "Handicapped" would only write to a few wholesale houses for quotations when buying instead of going by their lists he would find it to his advantage, and by doing so could compete with any company. The following are a few recent quotations received by "Licourice," carriage paid: Sodii bicarb., 8s. 6d. per cwt.; borax, 17s.; linseed, 13s.; linseed meal (best) 13s. 6d., (cheaper) 11s. 6d.; linseed oil, 1s. 6d. per gal.; turps (American), 3s. 7d., (Russian) 2s. 8d.; cod-liver oil, 9s.

Legal Queries.

Labels to be marked "Liable" or "Not liable" to medicine duty should be sent to the Editor in duplicate and with a stamped and addressed envelope for return of the marked ones, if desired.

164/36. W. T.—You have acted in utter disregard of the law covering the sale of goods, and are liable for all

expenses which have been incurred by their return to the sellers. It is a pity you did not thoroughly examine what you bought before buying; but that is your business, and not the sellers'. The goods are, of course, yours, and you have to pay for them.

168/71. *New Zealander*.—A colonial chemist with colonial indentures can obtain a certificate of qualification from the Pharmaceutical Society of Great Britain by passing an examination in English, Latin, mathematics (including arithmetic), and a modern language (a colonial examination covering the subjects may be accepted), and passing the Minor examination. For the latter it is necessary to prove that the candidate has been three years engaged in dispensing medical prescriptions, and this may be certified by any chemist and druggist or medical practitioner registered in Great Britain.

163/37. *W. J.* took premises on a five years' lease, terminating in March, and either side have to give six months' notice. "When should notice be given?" is, substantially, the question he wants answered, and it is impossible to reply without seeing the lease itself, as the wording would probably govern the question of notice subsequent to the termination of the lease. In ordinary cases, however, where the tenant holds over after the expiration of a lease and the landlord accepts rent subsequent to such termination, the tenant becomes a yearly tenant on such terms of the lease as can be applied to a yearly tenancy, and in that case either the landlord or the tenant must give six months' notice to quit, terminating on the quarter-day on which the lease expired.

168/66. *Amidol*.—You cannot break the lease, now that you have entered upon occupancy, because the landlord has not done all that he has covenanted to do. Your only remedy is to sue him for damages.

167/4. *E. H. S.*—A reference to the *C. & D. Diary* will give you all the information you want about the sale of benzoline and benzine.

170/27. *H. K.*—The Pharmaceutical Society have no power to differentiate between allopathic and homœopathic preparations of poison, and, unless the preparations come within the principle of *de minimis non curat lex*, decided in the case of the Society *v. Delve*, the Council are bound to take proceedings against unqualified persons who keep open shop for retailing, or who retail, tinctures of nuxvomica and aconite, or other homœopathic preparations of scheduled poisons.

172/2. *Inquirer*.—Thanks for your note. It is unnecessary to go further into the merits of a case in which there was no question of law, but merely of facts. The decision was upon the latter, and the law of "sale or return" is in no way affected by it.

Miscellaneous Inquiries.

We endeavour to reply promptly and practically to trade questions of general interest, but cannot guarantee insertion of replies on a particular date, nor can we repeat information given during the past twelve months.

139/64. *Jungle* (Ceylon) sends us a specimen of a jungle-plant which is used by the Cingalese for toothache. Europeans who have used it confirm the native observations, and say it acts splendidly, like cocaine. The specimen arrived in an advanced state of decay, consequently it is impossible satisfactorily to determine its botanical origin. From an examination of portions of the stem it appears to belong to the *Polygonaceæ*, and is probably *Rumex vesicarius*, which is extensively cultivated in Asia, and employed as sorrel in Europe. According to Dymock ("Pharmacographia Indica," Vol. III., page 157), the juice is said to allay the pain of toothache, and by its astringent properties to check nausea, &c. The herb also is considered very cooling and of use in heat of the stomach, and is employed externally as an epithem to allay pain, especially that caused by the bites or stings of reptiles and insects. The following plants are stated to be used against toothache in Ceylon: *Gynandropsis pentaphylla*, *Spilanthes Acemella*, *Ophiorrhiza Mungos*, *Vitex Negundo*, and *Tamarindus indica*.

29/60. *F. G. E.*—Thanks. The oil in the bay-rum formula, May 28, page 869, should be oil of bay (cl. myrcie).

167/20. *Combination*.—The only way to get a golden shade of aluminium paint is to mix Dutch metal with it. Try Fordham & Sons (Limited).

168/31. *W. K. H.*—You enlarge the statement into a general principle with which we do not agree, and which we did not express.

163/20. *Sanitation*.—The "Examination Manual" (6d.), published by the Sanitary Institute, Margaret Street, W., contains particulars of the examinations necessary for sanitary inspectors.

166/15. *G. P. L.*—Optical-examination.—You should obtain the syllabus of the Spectacle-makers' Company from the Clerk, Colonel T. Davies Sewell, 11 Temple House, Temple Avenue, E.C., which gives the particulars you ask about. Mr. Laurance, 21 John Street, Bedford Row, W.C., gives postal lessons in optics.

169/33. *A. H. B.*—See reply to 168/65, "G. P. L." The certificate of a firm of opticians as to a customer's proficiency in sight-testing ranks below that of an independent examining body. You could take the course of instruction, but we advise you to refrain from exhibiting any diplomas not granted by a public body.

157/33. *F. S. H.*—(1) Books on Tooth-extraction.—Gorham's "Tooth-extraction," Barrett's "Dental Surgery for General Practitioners." (2) Dental-journals.—"British Journal of Dental Science" (289 and 291 Regent Street, W.), "British Dental Journal" (Baillière, Tindall & Cox).

168/38. *Patent*.—Liq. sojæ hispidaæ is soy.

118/50. *Advertiser*.—We do not think there is a disinterested book on advertising such as you desire.

22/4. *Heworth*.—The reason that snow melts when salt is sprinkled on it is owing to the fact that a mixture of salt and snow has a lower freezing-point than snow alone. The intenser cold of salted pavements is due to the absorption of latent heat by the melting mixture, and it is on this principle that the use of freezing-salt for ice-making is based. The amount of depression in temperature depends to some extent on the hydration of the salt employed and the percentage of water of crystallisation.

156/32. *B. & G.*—Cobalt Glaze for Bricks.—Blue glaze generally contains cobalt, as cobaltous blues stand the heat of the kiln better than other substances employed. The "stain" is made by calcining and grinding a mixture of zinc oxide 28 parts, cobalt oxide 5 parts, stone 15 parts. Of this stain $1\frac{1}{4}$ oz., $1\frac{3}{4}$ oz., and 4 oz. are mixed with a gallon of "body" to make pale blue, royal blue, or dark blue glaze. The "body" is made of blue ball clay $9\frac{1}{2}$ lbs., flint 22 lbs., china clay $44\frac{1}{2}$ lbs., stone 13 lbs., plaster of Paris 11 lbs., water 15 gals. The sides of the bricks are dipped into a glaze thus compounded, and then fired.

162/67. *R. H. B.* (Bombay).—The method of curing as well as the variety of the tobacco-plant influences the colour of the finished product. The yellow type of tobacco favoured in England is dried as quickly as possible after gathering, the "yellowing" process taking about thirty hours at a temperature of 90° F. The temperature is finally raised to 120° to 170° to cure the tobacco. The dark leaf is the result of much slower drying, which permits a fermentation-process to take place, some varieties of the tobacco-plant being specially suited for this purpose.

Information Wanted.

Postcard replies to any of the subjoined inquiries will be esteemed.

19/91. Who are the makers of "Lavacide"?

168/70. Who are the publishers or posters of window-bills containing a picture of a siphon?

170/45. What is the Paris address of Gellé Frères, or who are their London agents?

172/1. Makers of tubes and cartons for 1-dr. effervescent tablets.

172/1. Makers of corrugated paper.

172/1. Maker of Celestine's biscuits.

Trade Report.

NOTICE TO BUYERS.—The prices given in this section are those obtained by importers or manufacturers for bulk quantities or original packages. To these prices various charges have to be added, whereby values are in many instances greatly augmented before wholesale dealers stock the goods. Qualities of drugs and oils vary greatly, and higher prices are commanded by selected qualities even in bulk quantities. It would be unreasonable for retail buyers to expect to get small quantities at anything like the prices here quoted.

42 Cannon Street, London, E.C., June 23.

AT the auctions of new drugs held to-day an exceptionally dull tone prevailed, the bulk of the goods being bought in, and where business was effected, prices showed a lower tendency. Zanzibar alces were offered without reserve and sold cheaply. Buchu-leaves were in fair supply and sold at rather easier rates. Sumatra benzoin and cardamoms were almost unsaleable. Ceylon coca-leaves sold at steady prices, and cassia fistula declined. Jamaica honey of the new crop brought lower prices, and ipecacuanha met with a fair demand at steady rates. Large forced sales on menthol were again made, and met with a decline of 1s. to 1s. 6d. per lb. Japanese peppermint oil was also easier, but for American GHG firm prices were paid. The supplies of senna and sarsaparilla were quite unimportant. Firmer prices were paid for Jamaica beeswax, Zanzibar and other descriptions being steady. "Outside" business has, if anything, been worse than usual, the half-yearly stocktaking adding to the existing depression. The German refiners of camphor have advanced their prices 1d. Citric acid is firmer, while cream of tartar and tartaric acid are easier. Cod-liver oil is again offered at lower prices, and the delivery-market for shellac and cloves is lower. The subjoined table gives the principal alterations of the week :

Higher	Firmer	Easier	Lower.
Camphor, refined (German)	Acid, citric	Buchu	Aloes (Zan.)
Canary-seed	Ammonia sulphate	Cassia lignea	Cassia fistula
Croton-seed	Soda crystals	Copper sulphate	Honey (Jamaica)
Elemi	Wax, bees' (Jam.)	Cream of tartar	Menthol
Oil, cocoanut		Ginger (Jap.)	Oil, cod-liver
		Oil, citronella	Pepper
		Oil, peppermint	Shellac
		(Jap. dementh.)	
		Rose-petals	

Cablegrams.

BERGEN, June 22.—The total catch of cod for the whole of Norway since the opening of the season now amounts to 49,151,000, which has yielded 15,648 barrels of oil. At the corresponding period of 1903 the catch amounted to 46,257,000, which yielded 2,333 barrels; and in the same week of 1902 the catch was 42,342,000, giving a yield of 18,846 barrels. The fishing at Finnmarken is now closing, and the market shows a hardening tendency, at 155s. per barrel, f.o.b. Bergen.

AMSTERDAM, June 23.—At the auction of cinchona held here to-day 8,086 bales and 598 cases were offered, weighing 774,418 kilos., and containing 36,942 kilos. of quinine. Of the above quantity 7,892 packages sold at an average unit of 6.40 per half-kilo., against 6.90c. per half-kilo paid at the auction on May 19. The following were the approximate quantity of quinine purchased by the principal buyers: English and American factories, 9,401 kilos.; Brunswick factories, 7,417 kilos.; Mannheim and Amsterdam factories, 5,144 kilos.; the Frankfort-on-Main and Stuttgart factories, 3,765 kilos.; and various buyers, 9,023

kilos. The prices paid for the manufacturing bark ranged from 2½c. to 66½c. per kilo., and for druggists' bark from 9c. to 56½c. per half-kilo. was paid.

NEW YORK, June 23.—The market here is quiet. Opium is steady at \$2.60 per lb. in single cases. Senega is dull of sale at 60c. per lb. New cascara sagrada is offered at 8c. per lb. Jalap is firmer at 12c. per lb., and an active market is reported for lycopodium at 69c. per lb. Round buchu-leaves are quiet, offering at 16c., and cod liver oil is weak at \$46 per barrel.

HAMBURG, June 23.—Yellow gum accroides is advancing, and 65m. per 100 kilos. is now quoted. Refined camphor in second-hands is offered at 450m. per 100 kilos., and Japanese wax is quiet.

ACETANILIDE is quoted at from 8½d. to 9d. per lb., according to quantity. It may be stated that, owing to the unremunerative prices which have prevailed for many months past, the article is not now manufactured on so large a scale as formerly, and the consequence is that stocks are becoming gradually less.

ACID, CITRIC, is firmer, at 1s. 0½d. per lb. for English, and 1s. for foreign, in quantities of at least a ton.

ACID, TARTARIC, is quiet, at from 1s. 0½d. to 1s. 0½d. per lb. for English, and 11½d. to 1s. for foreign, in quantities of at least a ton.

ACONITE.—Fair Japanese was limited at 38s. per cwt., and the same price is asked for German *Napellus*.

AMERICAN DRUGS.—The following are a few current quotations: Bayberry-bark, 42s. per cwt.; sassafras-bark, 4d. per lb.; simaruba-bark, 2s. per lb.; wahoo of root, 10½d.; wild-cherry bark, 3½d.; witch hazel, 2d. and 2½d. per lb. All the above are c.i.f. terms. Lobelia herb, 6d., and loose 5d. per lb., spot; damiana-leaves, 6d.; deer-tongue-leaves, 2½d.; cedarwood oil, 1s. 1d. per lb.; pennyroyal oil, 5s.; genuine sassafras oil, to arrive, 2s. 9d.; spearmint oil, 16s.; wintergreen oil, in tins in cases, 6s. 9d.; elecampare-root, 2½d., c.i.f.; golden seal, 5s. spot and 3s. 9d. to arrive; leptandra, 5d., c.i.f.; podophyllum-root, 40s. to 45s. per cwt., c.i.f.; blood-root, 7½d. per lb., c.i.f.; serpentry, 1s. 5d., spot.

ARROWROOT is quiet, a few barrels of St. Vincent selling at 1½d. per lb. for good manufacturing. *Pearl* in tins was bought in at 3½d., and in barrels at 2½d.

BALSAM, CANADA, is quoted on the spot at 2s. 2d. per lb. in cases, and at 2s., c.i.f., in casks.

BELLADONNA.—Small sales of good root have been made at 39s. per cwt.

BROMIDES.—In the present uncertain and weak position of the market, it appears advisable to buy for immediate requirements only, as it is quite on the cards that a reduction in the official price will take place, owing to the development of American competition.

CANARY-SEED is much dearer, owing to the rumours of a short crop in Turkey being confirmed. The price of Turkish seed on the spot has risen rapidly, and 70s. per quarter was paid on Wednesday. The trade demand, however, is slow, most of the business done being on speculative account.

CASCARA SAGRADA.—Business has been done in ton lots at 38s. 6d. per cwt., c.i.f., for September-October shipment, but no more is offered at this figure. In the drug-auction 100 bags of dull, thick quilly 1903 bark were held at 60s. per cwt., gross for net.

CHAMOMILES.—It appears that acreage of Belgian chamomiles planted out this year is much smaller than usual, and dealers in some quarters are holding back their offers, anticipating better prices.

COCAINE.—Hydrochloride is steady, with a fair amount moving off contracts, but there is little doing in the way of new business.

COCOA-BUTTER.—The auction to be held at Amsterdam on July 5 will consist of 50 tons of Van Houten's, 11 tons de Jong, 10 tons of Mignon, and 4 tons of a foreign brand.

COPPER SULPHATE.—Ordinary brands are easier, at 19l. 10s. per ton, and Liverpool is quoted 19l. 10s. to 20l.

CREAM OF TARTAR is quiet, and tending easier at 84s. to 85s. for 98-per-cent. powder, and 81s. 6d. to 82s. for 95-per-cent.

ELEMI is dearer, nothing being obtainable at under 30s., and for fine pale Manila 35s. is wanted.

OIL, CASTOR, is steady, Hull make being quoted at 21l. 17s. 6d. per ton for medicinal quality in barrels ex wharf, London. French medicinal is firmer, at 22l. per ton in barrels and 24s. 6d. per cwt. in cases, f.o.b. Marseilles.

OIL, COD-LIVER.—Rather lower quotations have again been issued by several agents for Norwegian oil, one of whom quotes 152s. per barrel, free on rails Hull, and another 155s., c.i.f.; but for finest non-freezing Lofoten oil 160s. is quoted in one direction. There is, however, very little business to be done, and all agents are eager sellers. Our Bergen correspondent writes on June 18 that the fishing at Finnmarken is likely to be closed by the end of the month, as the last reports from that source show a decline in the output. A slightly better feeling has prevailed in the market, and the general opinion is that we have now touched the lowest point. The quotation is still 155s. per barrel, f.o.b. Bergen, for finest Lofoten non-congealing oil. The exports from Bergen to date amount to 3,487 barrels, against 1,227 barrels at the corresponding date of last year.

OILS, ESSENTIAL.—*Star Aniseed* oil sells slowly at 4s. 10d. per lb. in case lots, which price could be shaded for quantity. *Citronella* oil is rather weaker, drums offering on the spot at 1s. 1d. per lb., and for arrival 10½d. to 11d., c.i.f., is quoted for drums.

OPIMUM.—The London market remains extremely dull, and no business appears to have been transacted.

SMYRNA, June 10.—The sales this week amount to 61 cases, of which 2 cases consisted of new-crop current at 6s. 2d. per lb., allowing for loss in weight. In addition, contracts for 20 cases of new Karahissar and usual run talequale have been made for delivery in August at 6s. 6d. for the former and 6s. 3d. per lb. for the latter. The following are the quotations: New current qualities, 6s. to 6s. 2d. per lb.; old, usual run manufacturing, as to quality, 6s. 3d. to 6s. 5d.; selected manufacturing, 6s. 5d. to 6s. 10d.; Yerli, as to quality, 6s. 6d. to 7s. 6d.; Bogaditz, 6s. 9d. to 7s. 6d.; and Karahissar, 6s. 6d. to 7s. per lb., f.o.b. The weather conditions are favourable for collecting. The outturn of the crop will probably amount to 9,000 cases, in addition to 3,000 cases Salonica. The arrivals to date amount to 70 cases, against 33 cases at the same time last year.

CONSTANTINOPLE, June 18.—The new crop is being gathered under the most favourable circumstances, and the general idea is that it will probably yield 12,000 cases, including Salonica. We expect to see prices down to the lowest on record. The market closes weaker, with small sales of druggists' at the parity of 6s. 1d. per lb., f.o.b.

OTTO OF ROSE.—It would appear from final results that the new distillation has not proved so favourable as last year at first anticipated, and the crop will be smaller than last year. The perfume of the otto is said to be good, but the crystallisation-point will be lower.

POTASH CHLORATE is steady, at 3d. per lb., net, for crystals and 3d. for powder, with a little obtainable from second-hands at from ½d. to ¾d. per lb. below these prices.

POTASH PERMANGANATE is firm at 32l. 10s. per ton, c.i.f., for small crystals in at least 1-ton lots.

QUININE is flat, and prices are unaltered, good German brands of sulphate in bulk being quoted nominally at 11d. per oz.

ROSE-PETALS.—The new French crop is being offered at a rather easier price—viz., 180s. per cwt., c.i.f.

SHELLAC.—The spot market has been quiet, with a small business at about previous prices, and for arrival TN Orange for June-August shipment has been sold at 191s., c.i.f. Futures are lower, July having sold at 204s. to 203s., August at 204s. 6d. to 203s. 6d., September 202s. to 200s., and October 201s. to 197s.

SOY.—Fine quality has been sold at 1s. 7½d. per gal.

SPICES.—At auction Jamaica *Ginger* sold at full prices for good, other qualities being about steady. Good bright plump in half-barrels sold at 59s. 6d., and cases at 55s.; middling to good middling at 40s. to 43s., low middling at 38s. 6d. to 39s., good common 36s., Rhaton 35s., and

mouldy 30s. to 33s. per cwt. Fair supplies of Calicut and Cochin met with a slow demand at easier rates for cut kinds, except for good bold. Bold, roughly cut and scraped and limed sold at 55s., medium little bold native cut at 30s., medium and small 27s. to 27s. 6d., small and tips 25s. to 26s. 6d. Good bold brown rough Calicut sold at 30s. and rough (without reserve) 17s.; fair small and medium washed rough Cochin at 19s., and good cuttings at 16s. Fair limed Japanese sold, without reserve, at 16s. 6d., being easier. Fair supplies of *Pepper* were offered, and mostly sold at lower prices, without reserve, including barely fair at 4½d. to 5d. Of Tellicherry 254 bags offered, and sold at 5½d. for good bold heavy, good at 4½d. to 5d., good to fine heavy shot 4½d. to 5½d., and fair dullish at 4½d. to 4¾d. Good to fine heavy Ceylon was bought in at 6d. to 6½d. per lb. Privately the market for Singapore has been dull and prices easier. There was little demand for *White pepper* at auction, good Singapore (14) selling without reserve at 8½d.; Ceylon was bought in at 8½d. to 9d. Privately the market closed flat and lower on Wednesday, Singapore for August-October steamer selling at 7½d., landed terms. *Chillies* sold at 42s. for Natal character, and *Pimento* was not offered. West India *Nutmegs* were steady, and *Mace* quiet, a few packages of West Indian selling at 1s. 5d. to 1s. 6d. for fair pale and reddish. Zanzibar *Cloves* (20) were offered, and bought in at 8½d., and a few cases of Penang sold at 8½d. for fair, rather dark picked. Privately Zanzibar cloves in the speculative market are lower, closing with sellers on Wednesday at 7½d. for June-August and August-October delivery; spot was sold early in the week at 8½d. per lb.

SULPHUR.—Supplies are scarce on the spot, and will be so until the arrival of the next Sicilian steamer due on June 29; 6l. 10s. per ton has been paid for foreign.

VANILLIN.—Dealers report a steady trade for small lots, on the basis of 1s. 4d. to 1s. 4½d. per oz., according to quantity.

London Drug-auctions.

The following table shows the quantity of goods offered and sold:

	Offered	Sold		Offered	Sold
Aconite (Jap.)	10	0	Kola	11	6
Aloes—			Lime-juice (W.I.) ..	6	0
Cape	8	1	Liquorice-root	60	20
Zanzibar	59	59	Menthol	38	38
Ammoniacum	7	0	Musk, skins	1	0
Aniseed, star	25	0	Myrrh	7	0
Benzoin—			Nux vomica	58	11
Sumatra	93	4	Oil—		
Buchu	22	4	eucalyptus	35	0
Calumba	56	0	neroli	6	0
Camphor (refined) ..	11	11	nutmeg	4	0
Cannabis indica ..	20	0	peppermint	10	10
Cardamoms	138	20	rose	2	1
Cascaras sagrada ..	100	0	Opium, Pers.	6	6
Cassia fistula	11	6	Orange-peel	3	0
Cinchona	22	0	Puree	2	0
Coca-leaves	41	36	Quassia (tons)	6	0
Croton-seed	50	40	Rhubarb	10	2
Cumin-seed	12	0	Sandalwood-chips ..	48	0
Cuttlefish-bone ..	100	30	Sarsaparilla, Native	11	5
Dragon's-blood	6	0	Seedlac	46	24
Ergot	7	0	Senega	5	0
Garnet-seed	50	0	Senna, Timnevelly ..	8	8
Gamboge	8	2	Tamarinds	121	0
Honey—			Turmeric	203	34
Australian	40	0	Wax (bees)—		
Jamaica	276	136	East Indian	71	0
Ipecacuanha—			Jamaica	17	17
Cartagena	4	0	Madagascar	96	1
"Johore"	41	19	Mogador	100	0
Rio (Minas)	10	10	Nyassaland	4	4
Rio (Matto Grosso) ..	29	4	West Indian	1	1
Kino	6	4	Zanzibar	183	51

ALOES.—Cape was represented by 8 cases, the good bright hard of which was bought in at 42s., and a case of ordinary slightly soft and drossy sold at 34s. per cwt. Of Zanzibar aloes 60 packages in skins offered, and sold with all faults, without reserve, at from 30s. to 32s. for good hard red; fair soft sold at 24s. to 27s., and sea-damaged and more or less in leaky condition at from 12s. to 16s. 6d. per cwt.

AMMONIACUM.—Six cases of good small to bold pale almonds and grain, part blocky and dark, were limited at 48s. per cwt.

BENZON.—The catalogues comprised Sumatra description only, for which there was practically no demand. Good Sumatra seconds with small to bold almonds, well packed, were limited at 7l. per cwt., and for good fair 6l. 15s. was wanted. Four cases of good greyish seconds, well packed, with extra small almonds, sold, without reserve, at 5l. 12s. 6d.

BUCHU.—In plentiful supply at easy prices. A few bales of fair round greenish leaf sold at 7d. per lb., and a bale of good green sold at 7½d.

CAMPOR.—In auction 11 cases of refined Japanese, consisting of 1-oz. and ½-oz. tablets, were offered, without reserve; 6 cases had already been sold privately, and the remaining 5 cases of ½-oz. sold at 2s. 2d. per lb.—no discount. On Monday the German refiners announced an advance of 1d. per lb., and now quote 2s. 1½d. for bells.

CARDAMOMS were almost unsaleable. A few cases of fair bold palish Ceylon Mysore sold at 1s. 2d., bold medium dullish at 8d., small and splits at 6½d., and ordinary pale seed at from 7½d. to 9d.

CASSIA FISTULA.—Good bold West Indian pod sold at 24s. per cwt., being rather cheaper. Privately plump sound pod can be had at 21s.

CINCHONA.—A parcel of 22 bales of ordinary hard flat Calisaya from Antofagasta was bought in at 1s. 10d. per lb.

COCA-LEAVES.—Ceylon sold at steady prices, 17 cases realising from 1s. 1d. to 1s. 2d. per lb. for fair greenish, and for 5 bags of brownish green 10d. was paid, common brown selling at 4d. per lb.

CROTON-SEED.—The bulk of the parcels offered had been sold privately, and for the remainder 30s. was wanted for fair Ceylon, part dark mixed. This is an advance of 2s. 6d.

CUTTLEFISH-BONE.—In good supply. Fine bold pale clean bone was bought in at 8d., and fair partly broken pale sold at 2½d. per lb.

DRAGON'S BLOOD.—Fine quality was not represented, and privately it continues scarce. That offered consisted of 6 cases of common cakes from Singapore, which were bought in.

ERGOT.—Privately 1s. 6d., c.i.f., is quoted for good sound Russian. The s.s. *City of Cork* from Oporto has brought 19 packages.

GAMBOGE.—Fair unsorted Siam pipe, slightly blocky and cakey, was limited at 15l.; and 2 cases of Saigon, consisting of dull bold with partly ricey fracture, sold at 13l. 15s., being dearer.

HONEY.—Jamaica of the new crop sold at lower prices. Good pale setting in cases brought 24s., pale setting in barrels sold at 20s., good bright amber liquid 20s. to 21s., fair bright red liquid in barrels 18s. to 19s. 6d., and dark liquid in various packages 15s. to 17s. per cwt.

IPECACUANHA.—Steady. The offerings included a new arrival of 41 bales of East Indian ipecac. from Singapore, 17 bales of which sold at the all-round figure of 4s. 6d. per lb. for good native-picked well-annulated root. Two bales of siftings sold at 2s. 11d. and 3s. 1d. per lb., and of Matto Grosso (Rio) 2 bales sold at 4s. 6d. to 4s. 7d. for fair, and for sea-damaged 4s. was paid. Ten bales of Minas (Rio) sold at from 4s. 5d. to 4s. 6d. per lb., being steady compared with the previous sale prices. Fair Cartagena was held at 4s. 6d. per lb.

KINO.—For good black grain from Cochin 3d. per lb. was paid.

KOLA.—Good bright Ceylon sold at 5d. per lb., subject to approval.

LIQUORICE-ROOT.—Twenty bags of good Persian decorticated sold at 14s. 6d. per cwt.

MENTHOL.—Further forced sales, comprising 5 parcels, representing 38 cases of various brands, sold, without reserve, at from 12s. 6d. to 13s., with one lot 13s. 3d., for Yazawa, 11s. to 12s. 9d. for Suzuki, 11s. 6d. for Chujo, and 13s. 6d. for Kobayashi. These prices show an average decline of about 1s. to 1s. 6d. per lb. on auction prices a

fortnight ago. Since the auction 10 cases of Suzuki brand have been sold at 11s. 9d.

MYRRH was represented by 7 bales of siftings, for which 85s. was wanted.

NUX VOMICA.—Eleven bags sold at 7s. per cwt.

OIL, NUTMEG.—Four cases of Hardouin's brand from Penang were bought in at 3d. per oz.

OIL, PEPPERMINT.—In auction 5 cases of American HGH sold at 14s. 3d. per lb., without reserve, and for 5 cases of Japanese dementholised Kobayashi, also without reserve, 5s. 2d. to 5s. 3d. was paid. Privately, HGH is firm at 14s. 3d. to 14s. 6d., and small sales have been made at these figures.

OIL, ROSE.—Settlings sold at 1d. per oz.

SARSAPARILLA was represented by native Jamaica only, and a few bales sold, after some hesitation, at 8d. per lb. for fair red, partly mixed.

SCABLAC sold at from 7l. 15s. to 7l. 17s. 6d. per cwt. for fair native flakes, and blocky sold at 6l. 12s. 6d.

SENNA.—This important drug was represented by 8 bales of Tinnevely leaf, which were offered without reserve, and sold at 3d. per lb. for medium greenish, part specky and sea-damaged, and 2d. for small to medium greenish sea-damaged. No Alexandrian was offered. Privately there is a good inquiry for small leaf, which is scarce.

TAMARINDS.—Fair pale squashy Antigua in barrels were obtainable at 8s. per cwt. in bond. Privately there is a large selection on offer.

TURMERIC.—The offerings included 169 bags of fair split Cochin bulbs, which were bought in at 8s., and for 31 of Cochin finger 6s. 6d. per cwt. was paid.

WAX, BEES.—A large quantity of Zanzibar wax was offered, and a fair proportion found buyers at 7l. per cwt. for even sound block, subject to seller's approval, and common mixed realised 6l. 10s., these prices being fully steady. Jamaica was about 5s. per cwt. dearer, fair to good red and brown mixed selling at from 7l. 10s. to 7l. 12s. 6d. per cwt., and an odd package brought 7l. 5s. A case of *West Indian* from St. John's sold at 7l. 7s. 6d. for fair brown. Good sound *Madagascar* block was held at 7l. 5s., and a bag of slightly wormy brought 6l. 17s. 6d. Seventy-three mats of Madagascar had not arrived in time for the sale. Unsorted *Bombay* was held at 6l. 2s. 6d. to 6l. 5s., dull bleached *Calcutta* at 6l., good pale bleached *Calcutta* at 7l. 2s. 6d., and 4 bags of wormy *Nyassaland* sold at 5l. 5s.

Heavy Chemicals.

The general condition of the heavy-chemical market remains practically as described in recent reports—although if anything there may be a slightly heavier demand—this, however, being mainly on old contract account. New business is only fair. Export demand is fairly brisk, but home trade requirements are mostly on the quiet side. On Tyne-side most of the works are shut down this week for the annual holidays, and advantage is being taken of this to carry out necessary repairs, &c. In values there is little new to report; they are most steady at recently mentioned rates.

SULPHATE OF AMMONIA, owing to heavier demand and increased inquiry, is firmer and tends dearer.

ALKALI-PRODUCE.—Caustic soda is firm at recent figures, high-strength article being in particularly good request: 76 to 77 per cent. 10l. 10s. to 10l. 12s. 6d., 70-per-cent 9l. 15s. to 9l. 17s. 6d., and 60-per-cent 8l. 15s. to 8l. 17s. 6d. per ton. Ammonia alkali continues to move well, and is firmly maintained at 4l. 10s. to 4l. 15s. per ton, free on rails at works. Bleaching-powder is only in quiet demand at unchanged figures of 4l. to 4l. 10s. per ton. Soda crystals are in average request, and are also rather firmer, at 57s. 6d. to 62s. 6d. per ton, free on rails works and f.o.b. Tyne, and 67s. 6d. per ton, f.o.b. Liverpool. Bicarbonate of soda steady, at 6l. 5s. to 6l. 10s. per ton in casks, and 6l. 12s. 6d. to 6l. 17s. 6d. per ton in 1-cwt. kegs, f.o.b. Liverpool. Salt-cake has maintained its strong position, and, with good demand, is now quoted about 35s. per ton, free on rails. Chlorates of potash and soda are in better demand and firmer, at 3d. per lb. Yellow prussiates of potash and soda are only moving quietly, the former standing at 4½d. to 5d. per lb., and the latter at 3½d. to 3¾d. Glauber's salts in fair request, at 32s. 6d. to 35s. per ton, free on rails, in bags. Hyposulphite of soda quiet: 6 to 8 cwt. casks 5l. to 5l. 10s., 1-cwt. kegs 5l. 15s. to 6l. 15s. per ton, according to quality

and quantity. Silicates of soda continue to move steadily: 140° Tw. 4l. 2s. 6d. to 4l. 12s. 6d., 100° Tw. 3l. 12s. 6d. to 4l. 2s. 6d., and 75° Tw. 3l. 5s. to 3l. 15s. per ton, f.o.b. Liverpool or Tyne, in usual casks, and according to quality, quantity, and destination.

Liverpool Drug-market.

Liverpool, June 22.

ACID, CITRIC.—Foreign continues very firm, at 1s. per lb.
CASTOR OIL.—Considerable sales of good seconds Calcutta have been made at 2½d. per lb. on the spot. Stocks have been further reduced in the absence of any arrivals. First-pressure French remains unchanged on the spot, and for shipment sellers are rather firmer at 18l. 10s. per ton, f.o.b. Marseilles.

CHILIAN HONEY.—Eight barrels fine Pile X. have been sold at 32s. 6d. per cwt., 17 barrels low Pile X. at 26s., and 20 barrels fine Pile 1 at 25s. 6d.

BEESEWAX.—Eight sacks of Chilian have been sold at 7l. per cwt.

ARSENIC continues steady, at 12l. 5s. to 12l. 10s. per ton. TURPENTINE remains unchanged, at 42s. 6d. per cwt.

QUILLAIA.—Price is somewhat firmer for shipment from the coast, at 17l. per ton, e.i.f., Liverpool. One seller has raised his price on the spot to 18l., and there is a firmer tendency all round.

BALSAM COPAIBA.—The limited stocks are held firmly at 1s. 7½d. per lb.

AFRICAN GINGER.—Recent arrivals are held for 20s. per cwt. in transit, with no sales to report at the price.

ACID, TARTARIC.—Foreign is rather weaker, at 11½d. to 1s. per lb., c.i.f., Liverpool.

German Drug-market.

Hamburg, June 21.

Business is still very quiet, and there are few alterations to report.

AGAR-AGAR is dull of sale, prime being quoted 290m. to 285m., and current quality 250m. per 100 kilos.

ANTIMONY is quiet, crude offering at 27½m. to 27m. per 100 kilos., net cash.

CAMPHOR.—Refined is firmer, the factories having raised their price by 10m. per 100 kilos., and now asking 460m.

CASCARA SAGRADA on the spot is cheaper at 140m. per 100 kilos., and forward delivery 80m. per 100 kilos.

CONDURANGO is quoted 70m. to 68m. per 100 kilos.

CORIANDER-SEED.—Mogador of the new crop is offered at 31m. per 100 kilos.

CUMIN-SEED is cheaper, *Mogador* offering at 41m. to 40m., and *Maltese* at 45m. per 100 kilos.

CARNAUBA WAX is unchanged at from 270m. to 310m. per 100 kilos., according to quality.

COCA-LEAVES are tending firmer, at 260m. per 100 kilos.

ERGOT is quiet at 280m. per 100 kilos.

COLOCYNTH is dearer, and 300m. per 100 kilos. has been paid.

GUM ACCROIDES.—Yellow is very firm at 55m. per 100 kilos.

IPCACUANHA.—Rio is quoted 10½m. to 11m., and Cartagena 9½m. per kilo.

KOLA is quiet, at 72½m. to 75m. per 100 kilos.

LYCOPodium is strong and scarce, 425m. per 100 kilos. being asked.

MENTHOL is quiet and cheaper on the spot, at 34m. per kilo.

QUININE is unaltered, at 37m. per kilo.

OIL OF TURPENTINE on the spot is firm at 85m., and July-December shipment at 82m. per 100 kilos.

WORMSEED is steady, at 108m. per 100 kilos.

OILS (FIXED).—Castor is firmer, first-pressing in barrels offering at 39m. per 100 kilos. Cod liver is dull, linsced is quiet, and rape steady.

OILS (ESSENTIAL).—Peppermint is quiet, American HGH offering at 15½m. to 15m. per lb., and Japanese at 13m. with forward delivery at 10½m. per kilo. Star-anise oil is unchanged, at 10½m. per kilo.

'Change-hour in the Oil-trade.

There is a strongly supported movement among certain members of the oil trade who meet on the Royal Exchange, to have 'Change time altered from 3 to 3.30 p.m., instead of 3.30 to 4 p.m. as at present. The idea is to allow more time for the completion of business initiated on 'Change; and it is reported that a deputation in favour of the proposed alteration is to wait on the Gresham Committee.

Caoutchouc.

It appears that, notwithstanding a constantly increasing demand for this commodity, the production of caoutchouc is steadily diminishing, says the "New York Commercial." In 1902 the world's total output was 54,000 tons, as against

57,000 tons in 1900. In that year the South American countries (Brazil, Peru, and Bolivia) contributed 25,000 tons of this total, and Eastern and Western Africa 24,000 tons. In 1902 the South American product was 30,000 tons and the African 20,000 tons, thus showing a decrease in the African supply and an increase in the South American. A certain portion of the total supply comes from Southern Africa, Central America, Mexico, Java, and Borneo, but from all these points the production is steadily decreasing.

Belladonna-culture in U.S.A.

An interesting account of the experimental cultivation of belladonna in the United States is given in the "Pharmaceutical Era" of June 9. The experiments, which have been in progress for a number of years, are being conducted by a well-known plaster-firm, who are now endeavouring to determine whether belladonna can be grown on a commercial scale. They have made careful assays of the plant, from the early stages of growth to the final withering, and intend to publish their results later. Some fourteen acres of ground is at present being used for the development of the plant, and this year the firm expect to realise large results from the increased acreage. Last year none of the plants stood the severe winter, and whether they would stand an ordinary winter has yet to be demonstrated. The commercial success of the experiments is of course the important point to be decided; and although the firm have obtained valuable information in reference to the plant itself and the development of the alkaloid, it is still open to doubt whether it can be grown commercially.

Chilian Nitrate of Soda.

According to the reports of nitrate-of-soda companies, the annual meetings of which have taken place lately, the trade is in a healthy condition, and most of them have been able to pay satisfactory dividends. The report of the Association Salitrera de Propaganda for the last quarter of 1903 contains some interesting figures relating to the present and future prospects of the nitrate-industry. The production for 1903 amounted to 1,614,434 tons, as compared with 1,419,483 tons in 1902, a difference in favour of the past year of 122,951 tons. Exportations in 1903 amounted to 1,584,142 tons, as compared with 1,504,472 tons in 1902, an increase of 79,670 tons. The deliveries for consumption in 1903 amounted to 1,641,374 tons, as compared with 1,420,041 tons in 1902, the difference being 211,333 tons in favour of 1903. If the consumption in February, March, and April of the current year should be equal to that in the corresponding months of last year the consumption in the nitrate year 1903-4 will be 1,650,013 tons. The total of the quotas assigned to the several works to January 31, 1904, amounts to 2,249,500 tons, and there are eight new works in course of construction, the product of which will equal 405,000 tons, making a grand total for the next nitrate year of 2,654,500 tons. If the demand should prove equal to this quota, it will threaten the life of the combination.

British Trade with Canaça.

Sir Frederick Milner had asked the President of the Board of Trade whether, in view of the fact that since the denunciation by Lord Salisbury in 1897 of the treaties of 1862 and 1865 with the German Zollverein and Belgium, British goods have been admitted into Canada with a rebate of 25 per cent., which was increased in 1901 to 33½ per cent., he would state the total value of the exports of British and Irish produce to North American colonies in 1897, 1898, 1900, and 1902, after the rebate had been raised to 33½ per cent., and in 1903. Mr. Gerald Balfour, in his reply, says that the 25-per-cent. rebate given by the Dominion of Canada began on August 1, 1898, and the 33½ per-cent. rebate on July 1, 1900. The following are the particulars desired for each year since 1897 inclusive:

Value of Exports of British and Irish Produce from the United Kingdom.

	Dominion of Canada	Newfound- land	Total to North American Colonies
	£	£	£
1897	5,171,850	304,341	5,476,191
1898	5,838,000	316,773	6,154,773
1899	6,969,535	377,607	7,347,142
1900	7,605,257	521,453	8,126,710
1901	7,785,472	358,223	8,143,695
1902	10,345,256	375,069	10,720,325
1903	11,105,011	392,119	11,497,130